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LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interest of Lake Carriers, and improve the character of the service rendered to the public.

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At a meeting of the executive committee of the Lake Carriers' Association, held this week at the office of Capt. Jas. Corrigan. Harvey D. Goulder, M. A. Bradley and B. L. Pennington were appointed a committee to draft resolutions on the death of Hugh MacMillan. A copy of the resolutions was sent to his family. The Detroit vesselmen adopted resolutions Thursday, and a number of vesselmen from that port went to Chicago to attend the obsequies.

At the meeting of the executive committee Capt. McKay read a letter from Secretary Keep, in which he stated that he had received a copy of a bill from Congressman Miner, of Wisconsin, which provided for the inspection by the government of all sailing vessels of 700 tons or more, and that all officers on such vessels be licensed, which means that masters of sail vessels will have to stand an examination as captains of steamboats do now. At the meeting of the grand lodge of shipmasters at Washington a resolution favoring such action was adopted.

The question was thoroughly discussed, and Capt. C. E. Benham was the only member of the committee that thought well of the plan. The committee decided to instruct the members of the legislative committee to fight against the bill. A meeting of the legislative committee will be held at Buffalo, when the matter will be taken up.

WORLD'S NAVAL SHIPBUILDING.

The world is entering upon a new era, a new departure in many lines, in none as much as shipbiulding. The whole world is being gone after. Far-off regions are being penetrated. Speed is reducing distance. Comforts are planting civilization in new lands. The handmaiden of this progress is shipbuilding. English public and private shipyards are crowded. France is an old competitor in the building of war vessels; Holland and Belgium are picking up unconsidered trifles at present, just as Germany did a few years ago. Japan is making a bold effort to do her own work; Sweden is preparing to enter the ring; Spain wants to transform her hematite ore into ships and engines; Russia is ambitious to fill her ports with vessels of native build, especially when she has finished the Siberian Railway, that great engineering undertaking which will affect the economic status of the whole of Europe and Asia, but of which we hear and think so little in this country. The Austrian Government is particularly active just now offering most attractive baits to the British shipbuilder who will migrate to the Adriatic; Italy, too, would like to add to her taxable resources in the shape of a shipbuilding industry.

CANAL TO THE COAST.

Senator Davis has given notice of an amendment to the sundry civil appropriation bill appropriating $150,000 for surveys and examinations of a deep waterway between the great lakes and the Atlantic in accordance with the plans indicated by the deep waterways commission recently transmitted to Congress.

COMMERCE OF TACOMA, WASH.

Harbormaster Clift makes the following report of the ocean business at the port of Tacoma for the month of January, 1897:

Imports.	Value.
From China and Japan cargoes of N. P. S. S. Co.'s steamers Tacoma and Victoria	$774,456 34
From Europe	3,853 92
Total imports	$778,310 26
Same month, 1896	375,000 00
Increase	$403,310 26

Exports.	Value.
Wheat, 286,582 bushels	$230,661 00
Flour, 10,057 barrels	42,169 50
Lumber, 6,329,976 feet	55,440 00
Coal, 28,850 tons	89,700 00
Merchandise to China and Japan	162,792 00
Merchandise to British Columbia	18,366 17
Total exports	$599,128 67
Same months, 1896	443,353 00
Increase	$155,775 67

Inward registered tonnage, 41,236; outward registered tonnage, 44,667. Inward cargo tonnage, 6,935; outward cargo tonnage, 55,433. Deep sea arrivals, 29; departures, 33.

A LAKE ERIE PHENOMENON.

The strange fact has been observed many times, by those who dwell on some of the islands of Lake Erie that a short distance east from Kelley's Island and Pelee Islands, the waters of Lake Erie never freeze, even in the coldest weather. On very chilly days a white, translucent vapor, similar to steam rising from a boiling cauldron, ascends continually from the icy depths, and although it seems out of accord with nature's laws, the waters remain open, at this point, as far as the eye can reach.

The distance between Marblehead Peninsula and Point Pelee, Canada, is about 40 miles, and it can be easily perceived that a great distance might be saved by founding a line of steamers from one shore to the other. By this method passengers and freight, especially the latter, could be transported throughout the whole year, with dispatch and security. Kelley's Island and also Pelee, could be availed as feeding stations, and they would also prove a refuge in excessively stormy weather.

HISTORICAL RECORD.

An abandoned hulk in Spring Lake, near South Haven, is one of the fleet of vessels with which Commodore Perry won the great naval engagement on Lake Erie during the war of 1812. Portions of the plaster material can still be seen which was put between the planking of Perry's boats to prevent cannon balls from penetrating the vessel's sides.

LIVERPOOL DOCKS.

Since 1861, the area of the Liverpool docks has grown from 341 acres to 531 acres, or an increase of 66 per cent; the vessels using the port have increased from 20,289 vessels, of 4,630,183 tons, to 23,695 vessels, of 11,046,459 tons; while the revenue from goods and ships has risen from £526,632 to £1,000,373 ($5,001,875).

UNDUE EQUIPMENT.

At the annual meeting of the United States inspectors of steam vessels, representatives of the International Steam Navigation Co. and the Netherlands American steamship line asked for modifications of the existing rules as to the number of lifeboats required on Atlantic steamers, by which such vessels with sufficient watertight bulkheads will not be required to carry as many lifeboats as formerly. It was stated that Great Britain had reduced the boat-carrying accommodation required for modern steam vessels with proper water tight compartments from 9.625 cubic feet to 7.563 feet. A similar modification of the American rules was requested.

NOTICE TO MARINERS.

No. 1 of 1897.

1.—Shoal off Port Colborne.

Department of Marine and Fisheries,
Ottawa, Canada, 16th January, 1897.

The owners of the steamer Sir S. L. Tilley report that she struck last fall, when drawing fourteen feet water, about half a mile from the outer light and on the alignment of the range lights of Port Coborne, Lake Erie entrance to Welland Canal.

Mr. Stewart, in charge of the Hydrographic Survey, reports that this shoal is situated 2,650 feet S. S. W. ¼ W. from the main light and has on it at present only 12 feet water. It lies only 100 feet to the westward of the alignment of the lights.

Masters of vessels are warned tat they should keep the inner light open east of the front or main light when entering or leaving this harbor. At present 16 feet water may be carried in by keeping the elevator in line with the main light, and 20 feet may be carried in by keeping the west side of the trees at Mr. Secord's house over the main light.

F. GOURDEAU,
Deputy Minister of Marine and Fisheries.

WESTERN TRANSIT LINE.

The appointment of Gibson L. Douglass as general manager of the Western Tranit Co., to succeed S. D. Caldwell, resigned, has been fully confirmed. Mr. Douglass was for a number of years manager of the lighterage department and elevators of the New York Central in New York City, of which the Western Transit Co. is the lake line.

ENDORSED.

The Cleveland Marine Record of January 28 rakes Senators Frye and Hale fore and aft for their seeming desire to have flogging restored in the American merchant marine. Capt. John Swainson, the editor of the Marine Record, is right, and we endorse his sentiments.—The American Shipbuilder, New York.

NEWS AROUND THE LAKES.

CHICAGO.

Special Correspondence to The Marine Record.

J. J. Rardon & Co. chartered the steamer City of London for oats to Port Huron at 2 cents.

At Miller Brothers' shipyard the tug Dennis Brothers was in dock for repairs to her stern bearing.

Capt. John Prindwille chartered the steamer Philip Minch for oats, South Chicago to Buffalo, at 2c.

The schooner D. S. Austin was sold at marshal's sale at Sturgeon Bay on February 1, to Capt. Sam Neff, of Milwaukee, for $2,550.

At the Indepenedent Tug Line's floating drydock, the tug Mentor is in dock for a new shaft, some general repairs, and re-calking and re-ironing.

Capt. James A. Calbick's many friends will be glad to know that he is now out of danger, and is on the road to recovery, after a severe spell of sickness.

The Independent Tug Line's tugs C. M. Charnley and W. H. Wolf towed the steamer Phillip Minch to South Chicago on Monday to load oats at the Bartlett-Frazier elevator.

Capt. D. Girardin, of the steamer S. R. Kirby, and his wife are here visiting their son, Capt. Thos. R. Gleason, who it is feared is dying of consumption at his home, 3104 South Park avenue.

At the yards of the Chicago Shipbuilding Co., the steamer Lewiston has gone into dock for lengthening 50 feet amidships. James Mowatt has just returned from Warren, where he has been getting timber, cut so that the lenghthening be done in one length pieces of timeber.

Harry Walter Thorp of the Goodrich Transportation Co. and Miss Grace Decker, daughter of Mr. and Mrs. Joshua Decker, 792 Walnut street, were united in marriage Tuesday evening at the home of the bride's parents. I wish the happy couple many years of happiness.

Capt. Phillip Broderick, of the steamer Robt. Mills, arrived here Tuesday to take charge of the body of his brother John, aged 30 years, who died of peritonitis at the Chicago Marine Hospital, Tuesday morning. The remains of the deceased will be taken to Sarnia for interment.

The steamer Jay Gould, Capt. John Stewart, arrived here Monday afternoon from St. Joseph. The Gould and the City of Duluth have had some severe encounters with the heavy ice off St. Joseph during the past two weeks. They, however, assisted each other in getting in and out of that east shore port, thereby avoiding any serious trouble.

The Goodrich Transportation Co., is again talking of building a new steamer for the line. She is proposed to cost about $200,000, be 235 feet long, 35 feet beam, and 16 feet moulded depth. In most respects she will resemble the Iowa, brought out last season. Her engines will be of triple expansion type, 15,000 horse-power, and supplied from two Scotch type boilers 12x14 feet and allowed 175 pounds of steam. The following officers of the company were elected for the ensuing year: President, A. W. Goodrich; vice president, E. L. Upton; secretary, F. C. Reynolds; assistant secretary, H. W. Throp; treasurer, W. J. Lauderbock; superintendent, J. W. Gilman. These officers, with T. O. Lowden, make up the board of directors.

The Chicago Shipbuilding Co. launched at their shipyard at 3 o'clock, Tuesday afternoon, February 2, the fine new steel steamship Crescent City. The ceremony of christening was ably done by Mrs. Wolvin, wife of A. B. Wolvin, president and manager of the Zenith Transit Co., for whom the new steamer was built. The Crescent City's dimensions are 406 feet keel, 48 feet beam, 28 feet molded depth. Her engine will be quadruple expansion with cylinders 60, 41, 28 and 19 by 42 inches stroke. The Chicago Shipbuilding Co. are the builders of the engine, and she will have Babcock Wilcox boilers. Nearly 200 Renslar Polytechnic Institute men were present, by invitation, and were entertained by the Chicago Shipbuilding Co. The launch was one of Manager Babcock's usual successes.

The funeral of Hugh MacMillan, who was unfortunately drowned February 1, when returning from California to Chicago, took place at Rosehill Cemetery, Tuesday afternoon, February 9. Private services were held at the late residence of the deceased, 424 East Superior street. Then services were held by the Knight Templars at the Fourth Presbyterian Church, corner Rush and Superior streets, the church being filled by the many friends of the deceased, after which the hearse containing all that remained of one of the truest and best of men, accompanied by nearly 100 carriages and their occupants, proceeded to the cemetery, where the Masonic service was held at the grave. The deceased was a member of Kilwinning Lodge, No. 311, Corinthian Chapter, Saint Bernards' Commandery, No. 35, Knight Templars. He had been agent at Chicago for the Western Transit Company many years prior to which he was a well-known lake captain. He was born in Scotland in 1843.

DETROIT.

Special Correspondence to the Marine Record.

There is practically no ice between Windsor and Detroit, and the ferry boats are running the same as in summer.

Jesse H. Farwell, head of the Farwell Transportation Co., has gone south for the remainder of the winter. He will also go into New England before his return.

J. C. Shaw is trying a case this week for Harvey D. Goulder before Judge Swan. Mr. Goulder was called away on business and left the matter with Mr. Shaw.

Mr. William Livingstone having returned from his trip across the Atlantic, attended the funeral of Hugh McMillan at Chicago this week. His son accompanied him to Chicago on this sad occasion.

There is a stronger feeling among vesselowners at this port relative to freight rates during the coming season, though it is admitted that freights may rule a little low at the opening. There is no reason why a fair living rate of freight can not be maintained at all lake ports, and, as all owners are now alive to their general interests, there ought to be loyalty enough among them to uphold one another.

W. B. Cady of Sault Ste. Marie has entered into partnership with John C. Shaw , the able admiralty lawyer of this city, and one of the rising men. Mr. Cady graduated from the Michigan University in 1882, was admitted to the bar two years later, and has practiced at the "Soo" for twelve years. There is no doubt but that the firm of Shaw & Cady will cut quite a swath in admiralty practice in the future. Mr. Cady is a brilliant orator, or at least I am informed that he has the credit of being such.

The Richmond County Democrat published at Tompkinsville, in an article on marine engineers, says: "Without hyperbole, it may be truly said of them, that they possess the brave, dauntless spirit of true heroes. In time of trial and difficulty or in a great crisis when danger or peril is imminent they are calm, loyal and faithful. When the greatest danger threatens, when all hope is abandoned by captain and crew, he is invariably to be found at his post, justifying the trust and confidence their superiors and the public repose in them."

The lodge of the Shipmasters' association at this port has sent the following advice to Congressman Corliss: "We would call your attention to the fact that a marine postoffice cannot be maintained at Sault Ste. Marie with results equally as good as are shown by the Detroit service, for the following reasons: Only five-eighths of the lake traffic passes the Soo canal, and one-half of that amount passes through the Canadian canal, which is outside the jurisdiction of the United States authorities. Thus three-eights of the traffic on Lakes Michigan and Huron would be entirely deprived of the benefits which now accrue, and the boats using the Canadian canal would have no service." The congressman is also urged to use all means in his power to prevent the dis-establishment of the Detroit service, should it at any time be attempted.

John B. Dyar, the promoter of the Detroit & Port Huron electric railway, said this week that they had secured franchises and rights of way in every township between Detroit and Port Huron, and as matters now stand we expect to let the contract for the road as soon as our engineers, who are at work, notify us that the surveys and specifications are completed. The running time of the road will be much faster than that of any similar road in the United States. The motors will have a guaranteed maximum speed of sixty miles an hour. The road bed, ties and rails will be laid according to steam railroad specifications, and everything will be of the best. Mr. Dyar is confident that the electric railway will be completed and in working order before the first of May. He said the accepted route is over the Mt. Clemens Traction Co.'s tracks into Mt. Clemens, down Front street, past the Avery House, and in a direct line to New Baltimore.

CLEVELAND.

Special Correspondence to the Marine Record.

Capt. Westcott, of Detroit, visited this port Wednesday.

The stockholders of the Mutual Transportation Co. and the Menominee Transit Co. re-elected their old directors.

The new C. & B. boat, of which so much has been said, will not be placed on the route this season, at least such was the sense of the board of directors at a meeting held this week. However, she is to be an assured factor in next year's work.

The Lake Shore Transit Co., of Vermillion, was organized this week by J. C. Gilchrist, R. E. Schuck, C. P. Gilchrist, W. H. Gilcher and A. J. Gilchrist. The capital is $400,000. The plan of these owners has been to form two corporations, in which all their vessels were included and this has now been carried out.

Because he was ordered to work in a dark place and met with an accident in consequence, Albert Hollis has sued J. W. Moore and other owners of the steamer Marquette for $20,000 damages. He claims that at about 5:30 o'clock on the afternoon of October 21 last, while the steamer was lying at the dock at Sault Ste. Marie, the second mate ordered him to sweep the tween decks. The hold was dark and he fell through an open hatchway, splitting open his head and suffering other injuries of a painful and permanent nature, hence the suit.

There has been nothing stirring in chartering circles at this port during the week and the inclination is to hold off for awhile. The talk that has been published of a low iron ore rate is not for the best interests of vesselowners, however, each individual owner or company will do as they have always done before, that is, act according to the best dictates of their own judgments, relative to fixing tonnage; moreover, large combinations of tonnage, such as has been formed recently, will make individual owners more keen and cautious in fixing tonnage ahead.

At the annual meeting of the Lake wood Transportation Co., the Lakeland Transportation Co., the Lake Erie Transportation Co. and the Becker Barge Co. held at Mentor, Mrs. Margaret A. Mack, William H. Becker, F. R. Seager, E. U. Pratt, and William H. Mack were elected directors. At a meeting of the directors William H. Becker was elected president. F. R. Seager vice-president, and William H. Mack secretary and treasurer. The companies operate the steamers V. H. Ketchum, Pascal P. Pratt and George W. Roby, and the schooners Wadena, William D. Becker and Annie M. Ash.

Philip Minch has bought the schooners Dundee and Aberdeen from Capt. James Davidson, of Bay City. The price is reported at $40,000 each. Mr. Minch had the vessels under charter last season. The Dundee will tow with the steamer H. A. Tuttle and the Aberdeen will be behind the steamer John N. Glidden. Both vessels were built by Capt. Davidson. The Aberdeen came out in 1892. She is of 994 net tons and is rated A1* and valued at $50,000 in Inland Lloyds vessel register. The Dundee came out about a year latter and has the same rating as the Aberdeen.

The appropriation committee has decided to include among other items for continuing contract improvements, $400,000 for the harbor at this port. This is a distinct victory for Congressman Burton and for the members of the river and harbor committee generally, as it will be recalled that the appropriations committee was not disposed to make these appropriations for continuing contract improvements until the contracts for the work had actually been let. Had the committee adhered to this plan the improvement of the harbor at Cleveland would have been delayed for a full year, as the contracts for the general improvement of the outer harbor contemplated by the government and authorized by the last river and harbor bill have not yet been let.

PORT HURON.

Special Correspondence to the Marine Record.

A car ferry route will be established between Detroit and Toledo.

Tug Mary Virginia is in the Wolverine dry dock being recalked and other repairs.

The Tompson Tug line are giving their fleet of tugs a thorough overhauling already for spring.

There is now good blue ice about 18 inches thick in Lake Huron as far as the eye can see from this point.

Bert Sinclair has retired from the lake service and taken a position with a large wholesale house in New York city.

Capt. Thomas J. Cowen is dangerously ill with consumption at his daughter's home, Mrs. Fred Boyre, in this city.

Between 20 and 30 teams are conveying farm products cross Green bay daily now from Sturgeon bay to Menominee and Marinette on the ice.

The Kendall Marine R. Co. have ordered two fine new row boats from E. H. Langell of Marine City for their use on the river. They keep an extra boat on hand in case of an accident.

Captain and Mrs. John Hayes celebrated the twenty-fifth aniversary of their wedding on Monday evening, Feb. 1. Mr. and Mrs. Hayes received many useful and costly presents, and the guests departed wishing them long life and many happy returns of the occasion.

Capt. "Gene" Rathburn, of Algonac, who has been sailing master of the steamer Santa Maria the past two seasons, has purchased of F. M. Hubbard one-fourth of the steamer Temptest No. 2 at the rate of $15,000 for the whole. Capt. Rathburn will sail and manage her himself.

The Emily B. Maxwell—Col. Ellsworth collision case is now being heard by Judge Swan at Detroit. The suit is a fight between C. A. Chamberlain, owner of the Ellsworth, which was uninsured, and the underwriters, on the Maxwell as to which shall stand the loss. The Maxwell was sailing from Alabaster, Mich., to Chicago with rock plaster, and the Ellsworth was bound light from Massillion island to Blind river. The two came together near Waugoshance light on the morning of September 2 last. The Ellsworth sank in deep water and is beyond recovery.

The small steamer Grandon was recently sold at Toledo under the hammer of the United States marshal for $1,450.

The light on Long Point, Lake Erie, is kept burning for the benefit of the Conneaut-Port Dover car ferry steamers.

The United States dredge Saginaw will be engaged in removing bars between Grand Haven and Grand Rapids the coming season.

The amount of grain now afloat at Chicago is estimated at 4,000,000 bushels, or about 2,000,000 bushels less than at this time last winter.

Charles King, an early builder of small boats and vessels at Oswego and Detroit, died at Oswego on Saturday, in the eighty-first year of his age.

A deputy United States marshal seized the barge Chicago Board of Trade upon an attachment of Detroit creditors. The schooner formerly belonged to B. B. Inman, of Duluth.

The following appointments in the lighthouse service in Michigan have been made: Xavier Rains, keeper, and Edward J. Lane, assistant keeper, Forty-Mile Point; Franklin Wits, first assistant, and William L. Campbell, second assistant, Stannard's Rock; Noah Bennetts, first assistant, Huron Island; Ralph Heater, assistant, Big Bay

Point; John Mattson, assistant, Portage Lake ship canal; Gustav Kirsch, keeper, Round Island, St. Mary's River.

Attorney General Maynard, A. R. Avery, Lincoln Avery, and Stephen Graham have returned from Bad Axe, where they represented the state of Michigan in the suit of the state vs. H. W. Warner. The case involved an island of 1,500 acres in Saginaw bay, and land adjoining. The case was tried before Judge Swan at Detroit, who rendered a verdict for Warner. It was tried again on the ground that it was a state matter and should go through the lower courts first. Judge Beach directed the jury to bring in a verdict for the state. The case will be carried to the United States supreme court. This decision will affect the title of about 8,000 acres of land at St. Clair flats. This is the first legal victory the state has won under the swamp land act. Warner has assigned his interest in the matter to a Wall street syndicate, whose special representative in the case is E. P. Erdman.

FLOTSAM, JETSAM AND LAGAN.

The majority of tonnage at South Chicago has been taken up. Duluth has chartered between 2,000,000 and 3,000,000 bushels of grain for spring delivery.

That portion of the barge Sumatra, sunk near Milwaukee piers, will be blown up with dynamite, as it is considered a dangerous obstruction to the navigation of that port.

The tracks on the new car ferry Pere Marquette have been found to be too narrow, and a gang of men from F. W. Wheeler's shipyard are at Ludington making necessary alterations.

Carrington is the name selected for the new steel barge building at South Chicago for C. W. Elphicke & Co. The barge building at the same yard for James Corrigan, of Cleveland, will be named Amazon.

A sailor named Frank McLain has been awarded a verdict of $4,000, at Milwaukee, for injuries received while performing his duty on a steamer at the Milwaukee dry dock last year. His suit was for $25,000.

At Boston, Mass., recently, bids were opened for $1,145,000 worth of dredging in Boston harbor, and it was found that among all the big dredging firms that bid, the Breyman Bros., John and Eugene, of Toledo, were the lowest.

Capt. Baxter, who has sailed the lighthouse steamer Haze since he left the schooner David Stewart, has been laid up all winter with a broken leg, sustained by a fall while laying up the Haze in Detroit last winter. He is just getting about.

A special from St. Clair, under date of Feb. 8, says the ice is all out of St. Clair river, except a little adhering to the banks. The ferry steamer Welcome will come out from her winter quarters today and resume her trips between St. Clair and Courtright.

Canadian Pacific freight which last season was delivered to the Soo line steamers at Windsor, Ont., will hereafter be carried to Midland, Ont., and there transferred to the Gladstone route. This is the new run had in view for the steamer Lora, which is now being lengthened and partially rebuilt.

Lake underwriters have raised the rate for grain for Montreal from Kingston or Ogdensburg on pin flat barges to 20 cents per $100. Canadian inspectors will exclude the pin flat from being considered a standard barge for the transhipment of grain. The decision is the result of so many accidents to this class of barges last season.

The Bay City Marine Railway has been doing quite a rushing business this season. The barge Mantenee has been given new solid upper works, new stanchions and four strakes of new plank, new bows, deck and rudder, new spars, also steel arches, to be completed about March 15th. The tugs Maud S., Giant and Florence are also on the books for a thorough overhauling ready for next season's work.

Of the steamers secured for the Lake Michigan east shore winter business the Osceola and Mary H. Boyce remain tied up also, the George Farwell and City of Traverse at Manitowoc. With the exception of the City of Traverse all were to be run on the tonnage basis. For the Traverse a lump charter was obtained by her owners, the Crosby Transportation company agreeing to pay $6,000 and the running expenses of the craft for the winter season.

"Now, Bobbie," said the teacher, "spell pipe."

"P-i-p-e," said Bobbie.

"That's right. And now tell me something about pipes. What do people do with them?"

"Well," said Bobbie, thoughtfully, "boys blow bubbles with 'em; plumbers put 'em in; Scotchmen blow music out of 'em; and men like Pa smoke 'em. It all depends on the kinds of pipes you want me to tell you about."—Harper's Round Table.

The annual reports of the Metropolitan Iron and Land company, which owns and operates the Norrie group and the Pabst mine on the Gogebic range, show that during the year 1896 the total amount of iron ore shipped by the company from all its mines was 398,035 tons. This is against a total of 968,693 tons shipped from the same mines during the year 1895. Last year shipments were only made during about half the season, owing to the light demand for ore and also to the fact that docks at Lake Erie ports were crowded and there was little room for additional cargoes. The outlook for 1897 is much better than at the beginning of 1896.

The Rochester & Pittsburg Coal & Iron Co., which has the handling of the ore that goes to the new furnaces of Rogers, Brown & Co., of Punxsutawney, where the coke ovens of the Buffalo, Rochester & Pittsburg railroad are situated, is preparing to put in two Brown hoists at the dock on the Blackwell canal to assist the McMylers now in use there.. The furnace is to be blown in for the first time this week. Thirty thousand tons of ore were sent up there last season, and the arrangement is to ship 100,000 tons there annually hereafter. The ore does not go into stock at the docks, but is loaded into cars and goes direct from the vessel.

The Pittsburg Chronicle Telegraph of the 28th ult. says: Capt. Callie L. French is reported lying seriously ill aboard her showboat C. O. at New Orleans. Her husband, with the Ruth, is up the Bayou Teche, and has been dispatched for. It was intended that both boats should return up the Ohio in tow of one of the Mississippi towboats on Wednesday, but Mrs. French's illness may prevent. Callie French was the second woman to procure a master's license, and the first in the Cincinnati district. Mrs. Mary E. Miller was the first woman that Uncle Sam ever licensed, and she held both those of master and pilot. There are now scores of others on rivers, lakes and gulf.

Plans and specifications for continuous contract work on the Keweenaw peninsula canal were not completed in time to permit of the furnishing of an estimate for an appropriation at this sesion of congress. Nevertheless, it is stated that bids for the work will soon be advertised for.

Last season the government engineers spent about $7,000 removing sand from the channel of the Kalamazoo river at Saugatuck, Mich., and to show how little was the permanent benefit obtained, it is reported that for more than half a mile there is not sufficient depth of water to float a light draft tug, and the present condition of the harbor would not indicate that a single yard of sand had been removed. It will require the services of a dredge for six or eight months in the spring to open a channel sufficient to let boats out, and continuously thereafter to enable them to continue running.

A wealthy lady is reported as having crossed the Atlantic 250 times, never having missed a trip since the Lucania was fitted out. On her last trip, a few weeks ago, she was seized with an attack of pneumonia, which caused her death at the age of 74 years. It is said that the master of the steamer and several of the officers have been left handsome bequests, $50,000 being mentioned as the amount bequeathed to Capt. McKay. If this is so, he won't need to plow the briny any more for a living. In this connection a personal acquaintance of the writer's, George Paynter, has a record of crossing the Atlantic 804 times. He has been in the Cunard service for forty-five years, the last eleven being spent on the Etruria. He has sailed in that steamer ever since her first trip, as purser and barkeeper, in charge of the wines and liquors. He is seventy-five now, and still hale and jovial, but he thinks of retiring. He has been thinking of it, by the way, for many years past.

The Advocate, Sturgeon Bay, Wis., states that the canal schooner D. S. Austin was sold under the hammer of the United States marshal at that port on Monday, and she was knocked down to Capt. Samuel Neff, of Milwaukee, for $2,550. The bidders were Jacob Jacobson, of Milwaukee; Kimball and Fredicks, of Chicago, and a representative of salt blocks located at Ludington, Mich. The bidding was started by a representative of the wrecking company, which held a claim of $1,300 against the vessel, this amount included the wrecking and repair bills. The purchaser, Capt. Neff, will utilize the Austin in the salt-carrying trade out of Ludington and Manistee under a contract entered into by him early last season. The Neffs now own a fleet of five vessels, the steam barge Edwind S. Tice, barges City of Toledo and S. O. Neff, schooners C. N. Ryan and D. S. Austin. The schooner has a net measurement of 268 tons, a B1 rating and a valuation of $3,000 in the Inland Lloyds' register. She was built in 1872, by the Bailey Bros. at Toledo.

RECORD OF AMERICAN AND FOREIGN SHIPPING.

The volume for 1897 of the Record of American and Foreign Shipping, which is the twenty-ninth annual issue of this valuable register and classification of shipping, is now being delivered to subscribers. The Record contains full reports and particulars of about 18,000 vessels of all classes and nationalities, rules for the construction and classification of iron, steel and wooden vessels, rules for the construction and survey of steam machinery and boilers for vessels, provisions for the installation of electric lighting and power apparatus on shipboard, and much other valuable information of special importance to underwriters and all firms or persons interested in shipping. Besides the usual information for the benefit of subscribers in the way of rules for construction, with their accompanying illustrations and tables, all of the utmost practical and technical value, the work contains such features as lists and addresses of prominent shipbuilders, dry docks, marine railways, marine machinery and boiler constructors of the United States, list of vessels whose names have been changed; also, compound names indexed as per last name, names and addresses of owners of vessels classed in the Record, all of which is nowhere else so completely classified. This Record of shipping has been made still more valuable by the addition of about 1,800 vessels navigating on the Great Lakes, which makes it the only book now published containing reports and particulars of all American vessels. The work is approved and indorsed by the important boards of underwriters in the United States, and is accepted by merchants and underwriters throughout the world as a standard register and classification of shipping. The new Record is quite up to the standard of previous issues, reflecting credit upon the compilers, whose complex work shows great care and absence of errors, the printing and binding being in the usual handsome and attractive style. Published by the American Shipmasters' Association, 37 William street, New York.

WORTH MORE DEAD THAN ALIVE.

Sir Wemyss Reid tells a story redolent of a grim shrewdness characteristic of canny Novocastrians. "There was a worthy, long since forgotten, in my time, who was a prototype of Rogue Riderhood in 'Our Mutual Friend.' He was known as Cuckoo Jack, and he lived upon the Tyne in a well patched old boat, picking up any trifle that came his way from a derelict to a corpse. One day an elderly and most estimable Quaker of Newcastle, in stepping from a river steamboat to the quay, slipped and fell into the stream. Cuckoo Jack was at hand with his boat and quickly rescued the luckless friend and landed him dripping on the quay. The good man drew half a crown from his pocket and solemnly handed it to his preserver. Jack eyed the coin for a moment with a lack luster gaze, spat upon it solemnly 'for luck' and, having placed it safely in his pocket, said in a matter of fact tone to the soaked Quaker: 'Man, ah'd hev gotten 5 shillin' for takin' ye to the deadhoose."—Ex.

ABOUT RIGHT.

"With the exception of the cook, who was a mulatto, hailing from St. Kitts, W. I., and ourselves the whole crew were Welsh. We soon found out that, not being Welshmen, we were 'no good.' The captain, a short, square-built fellow, of the name of Jones, was a typical Welshmen. Sundays, after we got into good weather, he was accustomed to sit in the cabin in plain sight of his tell-tale compass, with the skylight open and a glass of Jamaica rum at hand, and read the Welsh Bible in such a loud voice that he would keep the watch below awake for hours, stopping occasionally to curse the man at the wheel for being off his course. One of the crew, who was something of a joker, was at the wheel one day, as we were running the trades down with top mast and lower studding sail set forward. Jack reported in a low tone, so as to be heard only by the old man in the cabin, 'Sail on the weather bow.' The old man ran up the companion stairs, asking, before he reached the top, 'What does she look like, Jack?' 'A lower studding sail,' says Jack. The old man stopped gave him a quick look, and, saying: 'The hell it does,' went below again.

Stockless anchors are in constant demand on the lakes for all new tonnage. The Tyzack stockless anchor is widely endorsed and the manufacturer is represented by the well-known firm of De Graw-Aymer & Co., South Street, New York.

FRED. A. BALLIN, NAVAL ARCHITECT.

Frederick August Ballin was born in Germany in 1857, where he received a high school education at Berlin and Hamburg. After leaving school an apprenticeship was served at the Reiherstieg Schiffswerft in Hamburg, the oldest iron shipbuilding plant in Germany, taking at the same time lessons in the rudiments of naval architecture. He then went as student of mathematics and engineering to the polytechnic schools of Zurich and Carlsruhe, and from there to Berlin, where for two years he studied naval architecture at the Royal Academy (Konigl Technishe Hochschule) where the chief constructors of the Imperial Navy act as professors. Mr. Ballin finished his studies in 1879, and after working in different offices and having visited England and Scotland, came to the United States in 1880. Shipbuilding at that time being slack, he engaged himself with a New York firm as draftsman for the building of a sugar refinery in Halifax, N. S., and on completion of which was for some time with the Star Manufacturing Co., of Dartmouth, N. S. Returning to the States in August, 1881, and working for a while for Mr. R. Steuler, in New York, he accepted a position with the New York & Lake Erie Railroad Co., who sent him later to Wilcox, Pa., where a coal line was then building for them. While in New York Mr. Ballin had made the acquaintance of Capt. S. R. Kirby, then building the Erie elevator, and who was interested in the Detroit Dry Dock Co., at Detroit, Mich., and through him was offered a situation by Mr. Frank E. Kirby, as chief draftsman for that company in Detroit. He held this position until 1887 when his health failed and he had to go to California and quit work for nearly eight months. Coming East again, he was engaged by F. W. Wheeler, at West Bay City, as naval architect, but after a year's time, returned to Detroit, where, with Frank E. Kirby and others, was instrumental in incorporating the Detroit Boat Works, of which firm he became the architect and general manager, a position he still holds. During the fifteen years he has been on the lakes, shipbuilding has undergone many changes and has grown to an imposing industry. The Detroit Dry Dock Co., in 1881, was practically the only firm building iron vessels, but since then five other such yards have been started, while the size of the steamers built has increased from the 250-foot steamer carrying 2,000 tons to the 440-foot steamer carrying 5,000 tons. While with the Dry Dock Co. Mr. Ballin furnished most of the drawings for nearly 45 vessels, including wooden and steel freight and passenger steamers, car ferries, ice breakers and ferryboats. The first composite freight steamer, the Fayette Brown, was designed by him, which has been the pattern for five others. At Wheeler's he furnished designs for the John M. Nicol, Roby, Plankington, Romeo, Juliet, etc. The Detroit Boat Works confines itself to yachts and small steamers up to 180 feet in length, such as are unprofitable to build at larger plants. Under Mr. Ballin's direction and from his designs, such steam yachts as the Bonita, Princess, Azalea and Cynthia were built, besides a large number of other craft, such as the pasenger boats Swansea, Visitor, Roberta, the Baker submarine boat, the Huebner self-righting power life boat, the fast steam launch Dream, and hundreds of other boats, such as sail, electric, naphtha and steam launches and sail yachts.

The electric launches and official steam launch at the World's Fair came from his works. He also re-built and re-modeled the steam yachts Vita, Idler, Wayward, Pastime, and furnished plans for the Cantaluta and the 65-foot steam yachts built by Chas. P. Willard & Co., Chicago, Ill.; the steel steamer (260-feet) Aragon, the tug Lorman, and for some large steamers used on Lake Winnipeg, Canada. Mr. Ballin, we may add, is a 32d degree Free Mason. The officers of the Detroit Boat Works are: Frank E. Kirby, president; M. McMillan, secretary and treasurer; Fred A. Ballin, vice-president and general manager; A. Seymour, superintendent. The works and office are situated on Jefferson avenue, at Belle Isle Bridge, Detroit, Mich.

A MODERN YACHT DESIGNER.

The February number of Rudder contains an illustrated article on a cruising steam yacht designed by Fred W. Martin, Racine, Wis., and built to order. The dimensions of this handsome little craft are as follows: 70 feet over all, 14 feet beam and 4½ feet draught on load line. The specifications show a substantial wooden-built vessel and yet in all proportions light enough for fancy tonnage at fine lines. Her engine is from the Marine Iron Works, Chicago, and a Roberts Safety heater tube boiler allowed 250 pounds steam. Mr. Martin is to be credited with the design and construction of a steam yacht of which his friends as well as himself may well feel proud.

MARITIME LAW.

THE NIAGARA.

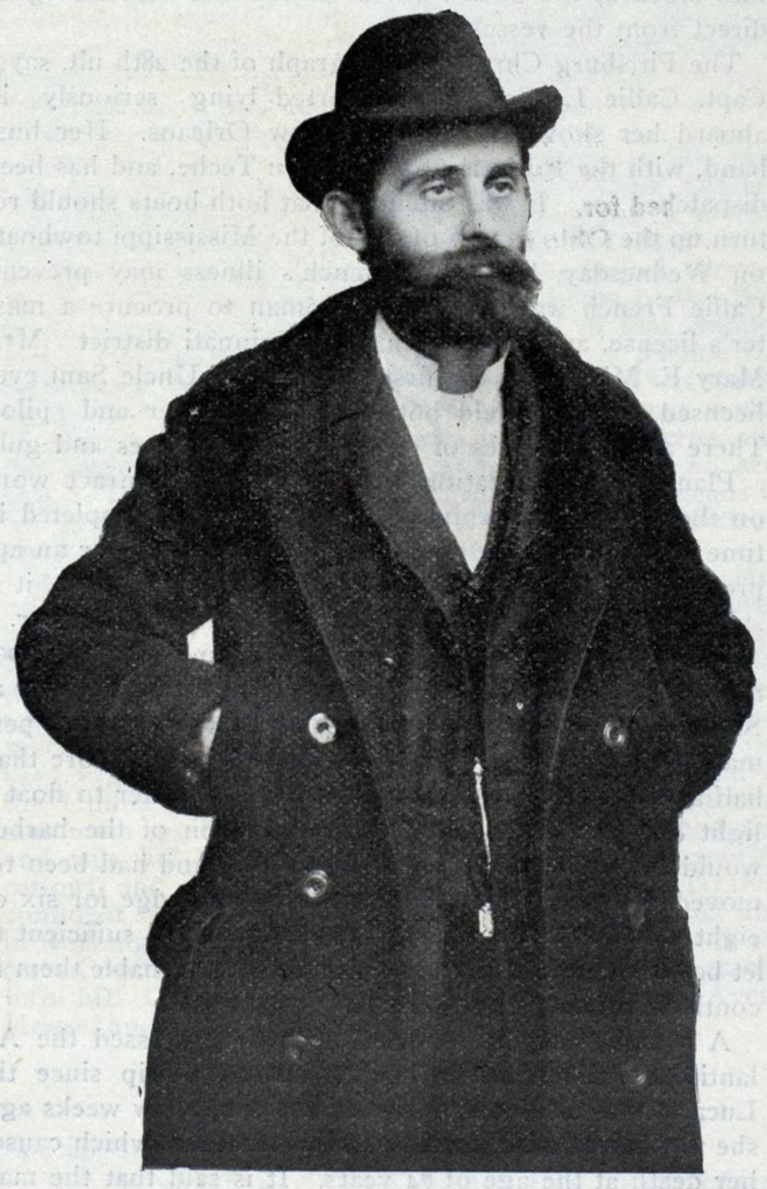
STAHL. et al. v. THE NIAGARA.

JOHNSON et al. v. SAME.

(District Court, S. D. New York. Nov. 5, 1896.)

1. Collision at Sea—Steam and Sail—Fog—Excessive Speed—Insufficient Fog Horn—Damages Divided.

The steamship Niagara, bound for Havana, came in collision in dense fog off the coast of Virginia with the bark Hales, bound north. The signals of each were not heard by the other in time to avoid collision. The steamer was making 8 to 10 knots, three-fourths of full speed, and for this speed was held liable. On the evening previous to the collision, when the fog arose, the bark's mechanical fog horn, on examination, was found to give an unsatisfactory sound, and a mouth horn was used instead. The mechanical horn had not been used or examined since the



FRED. A. BALLIN, GENERAL MANAGER DETROIT BOAT WORKS.

departure of the bark for Cuba, nor since she left Philadelphia on her outward trip: Held, that the horn must be regarded as insufficient at the time the bark sailed for Cuba, and that the latter was, therefore, in fault for not giving the mechanical signals required by law; the need of additional provision, either by means of repair on board, or of a spare horn at the start, in order to enable the vessel to give the required signals throughout the voyage, considered.

SAME—HARTER ACT—APPORTIONMENT OF DAMAGES.

In the case falling within the Harter act, the intent of the act is that damages to cargo arising from negligence in navigation, shall be borne by the cargo owner, and not by the ship; the act was not designed to increase or to diminish the liability of the other vessel in case of mutual fault and a division of damages. The previous liability of either vessel, therefore, cannot be exceeded, but may be reached, if that is necessary to indemnify the cargo of the other vessel; and where one vessel and cargo are wholly lost and the ship is of less value than the cargo, the shipowner can recover from the other vessel half his loss and retain it for his own use, and the cargo owner will lose so much of his claim. The lack of a sufficient mechanical horn and of means of repair on board when the ship sailed, is a defect in equipment, which renders the Harter Act inapplicable. If sufficient means of repair were on board, the failure to repair would have been negligence in the management of the ship, making the Harter act applicable. On this point leave to apply to give further evidence was allowed. This, however, does not here affect the extent of the Niagara's liability, but only the distribution of that amount as between the cargo owner and the owner of the Hales.

SAME—CAPTAINS' AND SEAMEN'S PERSONAL EFFECTS.

The captain, whose duty it was to attend to the efficiency of the horn before the sailing, can only recover half damages against the other vessel, which the latter can offset against her payment for cargo. The seamen, as the fault was in the equipment, can recover full damages; since it was the fault of the owners and not in the navigation or management of the ship to which they were privy.

PROTECTION OF AMERICAN SHIPPING.

(By D. D. C. Mink.)

Every American knows that the export and import movement by American vessels was formerly very heavy, but now has dwindled into insignificant proportions. It is a burning shame that, with a vast seacoast, splendid shipyards, ample wealth, a cereal and cotton growing country of almost unlimited extent, the American flag floats so few of the vast number of steamships that crowd our great ports; a shame that we as numerous purchasers and sellers should be compelled to pay vast sums annually for transportation to foreign corporations.

During the last session of Congress a bill was introduced, and undoubtedly in good faith and from motives the most patriotic, to remedy this evil. The bill is known as the "discrimination duty bill." It provides that a duty of 10 per cent. ad valorem, in addition to the duties now imposed by law, shall be levied on all goods imported in ships not owned in the United States, and where no duties are imposed by law 10 per cent. ad valorem shall be collected on all goods imported in foreign ships; and, further, that any and all clauses in existing treaties in contravention hereto, and all acts of Congress in conflict herewith, are hereby abrogated and repealed. At first blush everybody might applaud this bill and say our merchant marine is to be restored at once. Let us look more carefully at this proposed act. There are at least thirty-seven treaties with foreign nations that prohibit discrimination. Congress proposes to summarily abrogate these treaties and disrupt our trade relations with the maritime powers of the world. It may be answered that but one particular section of each of these treaties need be annulled; but is it reasonable to suppose that the foreign governments would allow us, at our own good pleasure and for the benefit of one party to the contract, to strike out this particular section, and allow the balance of the treaties to remain as now? We think not. Reverse the case; the United States would not consent to any such action. But suppose we go on and do this very thing. What would be the natural result? Every nation against which we thus discriminated would at once retaliate. This is a two-edged sword. If we impose discriminating duties in favor of American bottoms, England, Germany, France, the Netherlands, all nations, would at once put discriminating tonnage, or other dues, on all importations against vessels flying the American flag. The result would be six of one and half a dozen of the other; no gain to us, and friction between all. The disastrous effect of the world-wide disturbance of trade relations cannot be over-estimated. That we feared this very thing ten years ago, and proposed at once to retaliate if foreign nations discriminated against our vessels, is plain enough to any one reading the act passed by Congress, June 19, 1886, authorizing the President, whenever he is satisfied that any foreign country is denying to our vessels the rights and privileges in foreign ports that are accorded to their own vessels, to issue a proclamation suspending all commercial privileges to foreign vessels in American ports that are denied our vessels in American ports. By this very act, which President Cleveland has put in force against Germany, we give the foreign governments, against which we now propose to discriminate, a good text for a retaliatory bill.

But again, this bill proposes an additional tax of 10 per per cent. on all goods imported in ships—that is, all ships arriving at our ports flying a foreign flag, must pay 10 per cent. higher duty than if the goods had arrived at these ports in American bottoms; but how about goods arriving

in foreign ships via. the St. Lawrence and discharging at Montreal or Quebec? The goods on these shipments destined to points in the United States would come over the line by rail free of this 10 per cent. tax. So we are to legislate to curtail the movement of foreign ships to our own ports, and build up the foreign lines to Canadian ports, and encourage the movement to our own importations by the way of Canada. Oh, no! Congress will not do that.

Again, and along the same line. We shut out foreign steamers at San Francisco and prevent the movement across the continent by our own American railways, and encourage the movement by foreign vessels via. Vancouver and over the Canadian Pacific railway. Will the American people submit to this? This bill is a boomerang. It will do far more harm than good. It professes to build up the American merchant marine and destroys it. It is said that our prestige on the high seas in the early days of the Republic was due alone to the discriminating duty bill passed in 1789. It would be well before committing ourselves to this opinion to look carefully at the facts in the case. True, our commerce increased with marvelous rapidity; but it must be remembered first that it is easy to multiply many hundred fold when one starts with practically nothing to begin with; second, that during the years of the rapid growth of our commerce, say from 1798 to 1815, the nations of Europe were at war; ours was the neutral flag, and it was a golden harvest-time for our ships. They were enabled to carry not only the goods between Europe and America, but between the ports of the warring nations of Europe. Foreign nations had no time to give heed to what our young republic was doing in the way of development; third, if it claimed that discriminating duty was the sole cause of the growth of our commerce, how is it that, when we began to abandon this principle, in 1815,and the act was repealed in 1828, that American commerce continued to thrive so vigorously until the time of the civil war in 1861? Between 1861 and 1865 England had the advantage that we enjoyed between 1789 and 1815, and she made the most of it. In fact, when the war was over, her vast fleet of enormous ships, with the treasury of the United Kingdom behind them, staggered American private enterprise, and our great shipping industry has lain paralyzed and helpless, and to-day appeals to the government for that aid that not only England, France, Italy and last—that New England of Asia—Japan, is extending to their merchant marine in the way of bounty or subsidy; and Congress this time will not disappoint the American people. Call it by whatever name you choose. Relief will be extended that will help the farmer and the miner, the millowner and the operator, the shipbuilder and the shipowner, help that will run up our starry banner to the mizen-peak, not to the fore, as now. When this is accomplished, and "Old Glory" is once more in all harbors of all countries, and on all seas, then let us have "Flag Day" over again, from the Atlantic to the Pacific, and from the Gulf to the Lakes.

OBITUARY NOTICE.

(Capt. George Warner.)

One of the oldest and perhaps most widely known vessel men on the lakes, at least among the sailing community, passed away on Saturday last after an illness of only a few days. Capt. George Warner was bound apprentice to the sea at a very early age, and at a time, too, when boys "got more kicks than halfpence."

After sailing on the Atlantic and New England coast he came with a party of old shipmates to the lakes, making Cleveland his home, in 1847, or just half a century ago. By dint of steady perseverance he worked his way from cook to captain and in 1868 became broker and owner of vessels, being at the time of his decease harbormaster of Cleveland.

Capt. George was an Englishman by birth, but appreciating "the bridge that carried him over" he early became a naturalized citizen and always urged others to go and do likewise. He was a highly respected member of the Erie Lodge of Odd Fellows, Pearl Council of the Royal Arcanum, the Sons of St. George, the Anglo-American League, the Tippecanoe Club, and the Chamber of Commerce. His denominational connection was with the Episcopal church.

The children who survive him are his son, Mr. John W. Warner, a well-known Cleveland vessel owner and broker, also his daughters, Mrs. Ella Leonard, Mrs. Ida Hoffman, Miss Flora Warner, and Mrs. May Ellis.

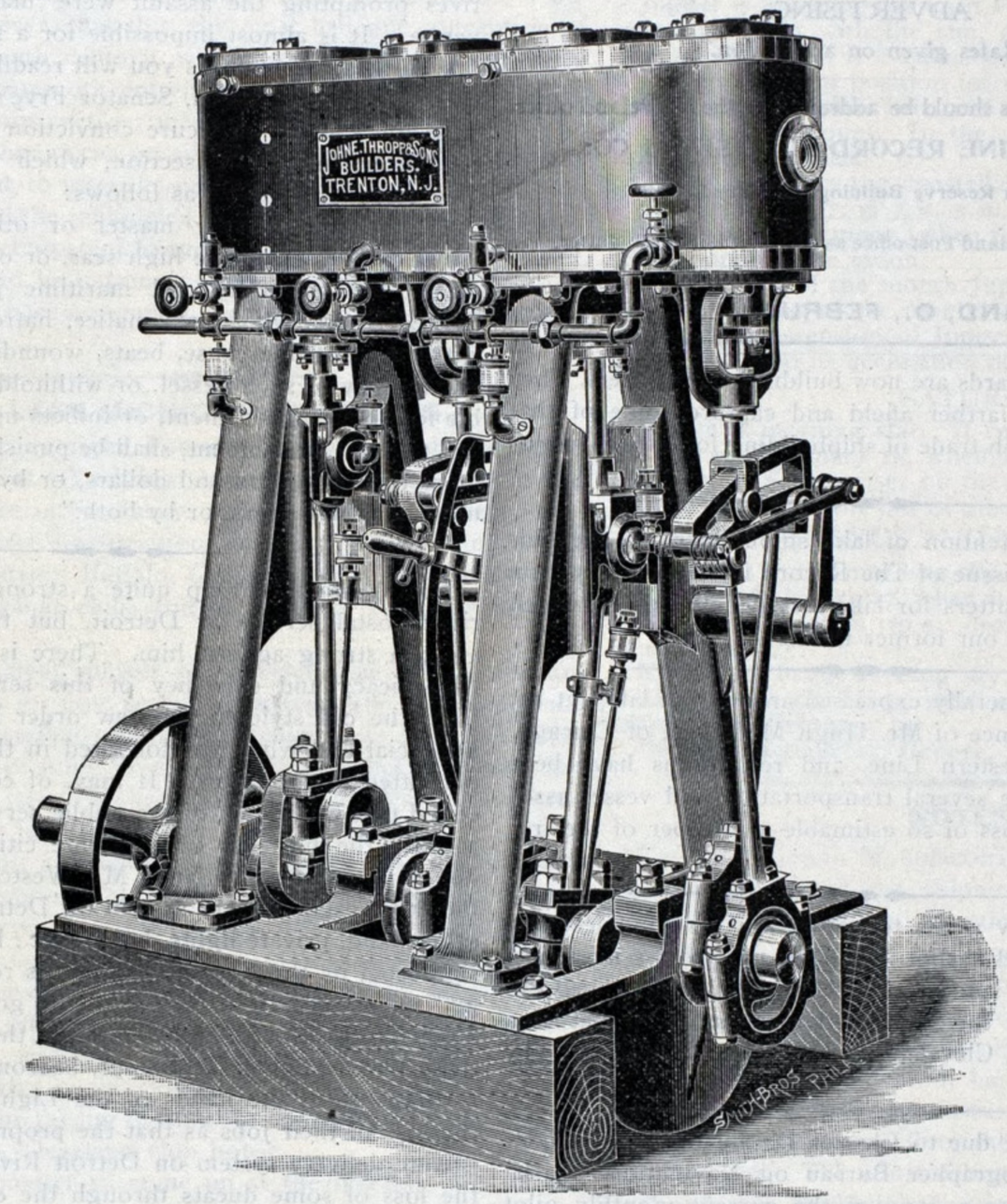
There are but few citizens who could point to such an honorable steady code of life as that pursued by the late Capt. He was upright and just in all his dealings. In business, social and domestic affairs there was no straighter or purer man, and, according to his best judgment, was always to be found on the side of the right.

FORE AND AFT COMPOUND ENGINES.

(ILLUSTRATED.)

The increasing demand for compound engines has proved that they are entirely satisfactory and considered by some to give better results on a small basis than the triple expansion engine. For steam yachts and tow boats this is especially the case, while even for passenger and freight steamers the compound engine holds its own in popularity. We illustrate herewith a style of compound engine which has proved particularly satisfactory in use, and has been found also splendidly adapted for electrical purposes, which is a considerable desideratum nowadays. This engine is designed and manufactured by the John E. Thropp & Sons' Co., at Trenton, N. J., a concern which in the past few years has so increased its capacity and output as to become a first-class corporation.

In the design and style of this fore and aft compound



BUILT BY JOHN E. THROPP & SONS' CO., TRENTON, N. J.

engine, the manufacturers have kept in view the economy of space, strength, proportions and durability for 300 pounds steam pressure, which they have experienced with the various water tube boilers on the market. Their experience and practice in building and remodeling various kinds of engines for the last twenty-five years have convinced them that the best materials and workmanship are none too good, and a very highly finished engine is not so important. This engine has, therefore, been made a specialty with them, although they are in a position to make single or triple expansion engines any size their customers desire. A brief description is as follows:

The cylinders are supported upon hollow cast-iron housings, which are securely fastened to a substantial bed plate. The bed plate is constructed so as to catch all the waste oil and grease, which overcomes the saturation of the hull. The housings are bored in the lathe, also bed plate, after being babbitted, making the engine machine lined. All castings are made of the best charcoal iron, hard, close and free from sand holes. The valves are of the balanced piston type, which overcomes the serious objection often encountered in high speed engines, and saves the wear and tear on the link motion and eccentrics. For reversing, the link motion made of steel, fitted with case-hardened block and pin is used.

The crossheads are made of steel, fitted with brass gibbs. The crank shaft is large diameter, made of steel, with large crank pins, which insures a smoooth working engine. Connecting rods, eccentric rods, piston rods and valve stems are made of steel. The valve stem guide is fitted up with brasses, which are adjustable. All wearing parts are built so as to take up all lost motion. Engines are neatly jacketted with Russian iron, accurately fitted, and have all necessary oilers. Each engine is tried and thoroughly adjusted before leaving the works. The Thropp Company at the present time are building several engines for the export trade, and also for orders in this country, and have orders booked which will keep them busy till next autumn.

EASTERN FREIGHT REPORT.

Messrs. Funch, Edye & Co., in their weekly freight report to the Marine Record from New York, Philadelphia, Baltimore and other eastern coast ports, state that chartering for grain continues active, and a large number of steamers has again been placed at rates unchanged for prompt boats, whilst for March and later months, owners appear inclined to make some concession. At the time of writing the demand is evidently slackening off, as evinced by offers of recharter of February boats coming from Baltimore. The feature of the late fixtures is the demand from Philadelphia, under which a greater number of boats has been taken to load there than has been the case for a long time past. The inquiry from Denmark appears to have been filled for the time being, and we are still assured by charterers generally that new business, except for distant months, is not in demand, and, in any event, not practicable under limits sent. The situation of other trades presents very little change from what we last reported. We learn of a boat for February loading, placed from Savannah, but whilst there is still some inquiry at this and other Atlantic cotton ports, charterers appear unable to meet owners' demands, in view of the very cheap through rates by coasting steamers and berth boats from the northern range of ports.

In the case of the Northern Steamship Co. vs. Hackett, which came up at Toronto, Thursday, the solicitor for the plaintiff Murphy, moved for an order canceling the check issued out of court to both plaintiffs and for issue of a new check payable to solicitors. As there was no case shown for the Northern Steamship Co., the order was granted.

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CLEVELAND, O., FEBRUARY 11, 1897.

American shipyards are now building war cruisers. They might look still farther afield and capture some of that Scotch and English trade of shipbuilding for foreign countries.

We call the attention of lake shipbuilders to the bids asked for in this issue of The Record for the construction of two revenue cutters for lake service, allusion to which has been made in our former issues.

Regrets are generally expressed around the lakes at the sudden calling hence of Mr. Hugh McMillan, of Chicago, agent of the Western Line, and resolutions have been formulated by the several transportation and vessel associations on the loss of so estimable a member of the fraternity.

Milwaukee now wants to get up on her hind feet and do some river and harbor improvements from a municipal standpoint. The sum of about $250,000 could be well expended inside of the port or harbor limits at that city. Chicago, Buffalo, Cleveland and Duluth are in it and why not Milwaukee?

Our thanks are due to Charles D. Sigsbee, commander U. S. N., Hydrographer Bureau og Navigation, Washington, D. C., for a copy of the current monthly pilot chart of the North Atlantic. It is of course beyond our province to criticize the publications of the hydrographic office, yet, we can at least say that Commander Sigsbee keeps his delineations up to date and perhaps somewhat in advance of his predecessors.

The local inspectors granting five year licenses to masters and pilots on the lakes had better hump themselves somewhat in order to keep level with the times, or the nautical schools will be making a show of them. We have just received from Clarence E. Long, principal of the nautical school at Sturgeon Bay, Wis., a curriculum that would swell the head of any local inspector on the lakes to get through with and there is more to follow. The only general lake point that we find Mr. Long deficient in, or rather not mentioned in his literature, is the "Rules of the Road," which by the way is a most essential study. The so-called White bill for steering and sailing rules is of great necessity to safe navigation and it is a wonder that the hydrographer of the navy who endorses the Sturgeon Bay school did not notice this fact, as, besides correcting courses, the rules of the road is the next, if not of primal importance. However, these are the days when "royal yards are no longer crossed with pipe stems," etc.

TO THRASH SAILORS.

It would appear that Senators Frye and Hale only wish to whip off some objectionable features in the legislation especially promulgated to benefit sailors by introducing their thrashing bill. They really do not mean what they say and made the question at point by introducing counteractive measures. As for instance, the following communication this week from Washington to the editor of the Record:

"Permit me to invite your attention to the fact that in a recent issue of the Record you have unintentionally both misconstrued a bill pending in Congress, and have also done great injustice to Senators Frye and Hale. Some misinformed person has recently caused to be telegraphed from Washington a statement that a bill supported by Senator Frye, proposed to restore flogging in the merchant marine. The section in question is section 18 of H. R. 2663. That section now reads as per enclosure. The amendment proposed by Senator Frye strikes out the words 'from malice, hatred or revenge.' That is the only change made by it in the present law. The present law requires the sailor to prove in case of an assault not only that it was without justifiable cause, but also that the motives prompting the assault were 'malice, hatred or revenge.' It is almost impossible for a sailor to prove any one of these motives, as you will readily see. By striking them out of the section, Senator Frye's bill makes it possible for a sailor to secure conviction when assaulted by an officer, under this section, which is now impossible. The amendment reads as follows:

"R. S. 5347.—Every master or other officer of any American vessel on the high seas, or on any other waters within the admiralty and maritime jurisdiction of the United States, who, from malice, hatred or revenge, and without justifiable cause, beats, wounds or imprisons any of the crew of such vessel, or withholds from them suitable food and nourishment, or inflicts upon them any cruel and unusual punishment, shall be punished by a fine of not more than one thousand dollars, or by imprisonment not more than five years, or by both."

Mr. Westcott put up quite a strong fight against the river postal service at Detroit, but the odds were and are too strong against him. There is now no doubt of the efficacy and efficiency of this service. The change from the old style to the new order has been markedly beneficial and what was tolerated in the past will not be permitted in the future. It may, of course, be acknowledged that no branch of the public service should be used to ruin the business of a private citizen, this has been done in a measure, so far as Mr. Westcott is concerned, in the free postal delivery system on Detroit River. On the other hand, private lights, buoys, etc., have been regularly supported by those interested and as regularly taken over and maintained by a branch of the government, viz: the Light-House Board. As well might the former keepers of these private lights, light-ships, beacons, buoys, etc., seek recompense at the hands of the Light-House Board for the loss of their jobs as that the proprietor of the former private delivery system on Detroit River should object to the loss of some ducats through the enhanced service of the United States postal system being introduced. Furthermore, it is certain that the better service will be maintained.

The Railway Review, Chicago, seems to imagine that Congress ought to appropriate similar sums for railroad development as is regularly awarded for the conservancy and improvement of national waterways. To say the least, the logical conclusions to be drawn from their recent articles in the Railroad Review on this subject, are both specious and convincing and such would be their effect if based on tenable grounds, but the conditions existing between the two methods of transportation are utterly and entirely different, hence the seeming discrimination.

How our descendants will laugh at our attempts to develop power on steamers by fueling with coal. The power which will cross the Atlantic or any other waterway in much less time than at present is right alongside of the vessel and we look to see this power brought into force quite early in the future. There is nothing lost in nature, a vacuum is unknown, the supply is equal to the demand. There is no waste, all of which is easily demonstrated. The tides, currents and winds are at the command of the scientists and as such ought to be utilized as far as human ingenuity can at present perceive and accomplish. Take the Mississippi, for instance, what enormous motive power is lost from the source to the outlet of that waterway. The effete monarchies of the old world may be quietly left in the lurch, but Americans at least should take advantage of their natural facilities and bring into effect the forces placed at their disposal in the new world. Niagara has clearly furnished the initiative. Not to mention works at Sault Ste. Marie, Mich. Why not proceed further on these lines and make flowing waterways fulfill their due industry in the economy of the universe.

If the plans of the Cleveland Shipbuilding Co. for the new shipyard at Lorain are carried out to the letter the plant will be a model one throughout. Electricity is to be utilized for driving the machinery in the different departments, and compressed air for cranes over tools, riveting machines, etc. The stationary drydock will be 560 feet long, 106 feet wide at the bottom and 20 feet deep. A pumping capacity of 90,000 gallons per minute will be provided, which ought to empty the dock in one hour. Berths suitable for the construction of four large-size steamers at once will be provided by two slips, each 550 feet long and 125 feet wide. Dock room for a winter fleet of thirty or forty vessels also constitutes part of the plant. The present intention is to have the new yard ready for business in less than twelve months. The capital stock of the company has been increased from $500,000 to $1,000,000.

Dredging contractors held a convention in Chicago this week and enjoyed a social time. The idea that any trust was organized is simply ridiculous, although officers were elected and the meeting assumed an official form, yet the whole affair was more from a social than a business standpoint. E. J. Hingston, of Buffalo, was elected president. of the thirty dredging firms doing business on the lakes, and a central office has been engaged at Detroit where members can make headquarters when visiting that port.

All marine interests are at one relative to the value of the marine postal service on Detroit River, nor can we imagine where the objection comes in, although we may say that some personality is evidenced. Congress ought to appropriate a sufficient amount to carry out this service during the season of navigation and that, too, in the most liberal manner possible, moreover, the machinations of a local boatmen need not be considered in this question of general if not national importance. We would distinctly say, improve the service.

In Mr. B. L. Pennington's recent paper to the Ohio State Board of Commerce, a synopsis of which is contained in this issue, we recognize that he has treated the feature of a canal from the lakes to the coast in the broad and liberal spirit in which the question ought to be handled. Given every national facility and it will yet be a decade or two before adequate communication will be opened and by that time transportation affairs will have so changed as to render today's objections ridiculous. Mr. Pennington is right all through in this matter.

DETROIT AND TOLEDO CAR-FERRY LINE.

It would now appear as if there was going to be something in that Detroit-Toledo car-ferry line after all. A recent special states that the line will be known as the Michigan & Ohio Transportation Co., general manager, E. H. Morean, of Detroit, and general traffic manager, William Jacobson, of Chicago. Connection is to be made at Detroit with the Grand Trunk Railway, and at Toledo with all roads except the Lake Shore & Michigan Southern and the Michigan Central. The headquarters of Traffic Manager Jacobson will be at Toledo. General Manager Morean is confident of the success of the venture. The Lake Michigan Car-ferry Transportation Co.'s business is now on a paying basis, he says, though the company had to overcome the bitterest kind of opposition from the railroads. Its route is a long one, but the railways were finally compelled to allow a differential. On August 11 last its freight rates ran from 53 cents per 100 pounds on first-class to 15 cents on sixth-class. On August 25 it had cut, to meet the railways, to 15 cents per 100 pounds on first-class and 6 cents on second-class.

ADMIRALTY LAW.

An important admiralty suit that is engaging the attention of Judge Swan this week is the outgrowth of the Oceanica-Chisholm collision, which occurred at Grosse Pointe, just below the new cut, at 11 o'clock on the night of August 14 last. The Lehigh Transportation Co., owners of the Oceanica, libeled Richardson and others, owners of the Chisholm, for $30,000, and the Cleveland firm replied with a cross-libel demanding $40,000 damages.

The steel steamer William Chisholm was bound down with 1,800 tons of ore. The wooden steamer Oceanica was bound up with about the same amount of coal. The Oceanica's owners claim that after the exchange of signals, by which each was to pass to the left or port of the other, the Chisholm was so badly handled as to bring her crosswise to the bow of the Oceanica; that the latter, in spite of the fact that she stopped and backed to a standstill, could not avoid the collision; that the headway and position of the Chisholm were such that she ran broadside against the stem of the Oceanica, causing both to sink.

The owners of the Chisholm set up that after both steamers had by signals agreed to pass to the left of each other, the Oceanica swung to starboard or right, in violation of the signal; that while thus swinging the Oceanica blew one whistle, directly contrary to the first signal; that the Chisholm answered with one whistle, but that the momentum of both was such that nothing could be done to avert the contact. The Chisholm was struck on the starboard side, abreast of the engines, and the hole in her was 18 feet long perpendicularly, 8 feet wide and 8 to 10 feet in penetration. She sank within a few minutes almost broadside, right in the channel. The master of the Oceanica attempted to turn his boat and run her to Detroit, but her badly demolished bow let in so much water, that she also sank a short distance from the other.

There is the usual long array of lawyers and expert witnesses for both sides, and it is possible that Judge Swan may deliberate somewhat before he arrives at any conclusion in this case.

OVERLOADING VITIATES INSURANCE.

In New York city last week Justice McAdam, of the Supreme Court, rendered an interesting decision in a suit brought by John McCarthy against the St. Paul Fire and Marine Insurance Co. upon a policy on the tug James D. Nichol, which foundered just outside of New York harbor on June 24, 1894, causing the loss of many lives. The defendant set up a condition of the policy, declaring nonliability for any loss consequent upon or arising from overloading, or any violation of the navigation laws and regulations of the United States. After plaintiff had made out a prima facie case the defendant established that the tug, which was 75 feet long and 17 feet beam, was overloaded in violation of the federal statute. Justice McAdam held that the burden was then thrown upon the plaintiff to show that the overloading could not have caused or contributed to the accident, but that the foundering resulted from some peril insured against, and finds that no such evidence was produced. "It will not do," the court said, "to attribute the sinking solely to the storm, for the tug was staunch and well calculated to ride through it in safety. She was built with that end in view. The storm was not an unprecedented or unusual one, and all the other tugs which went out that day came back in safety, several of them following in the wake of the Nicol." The court found that disregard of the government regulations was the predominating and efficient cause of the loss. "The act of those in charge of the tug in allowing eight-one persons besides the crew to go to sea in a small craft licensed to carry forty-five persons," Justice McAdam remarked, "was dangerous and reprehensible in the extreme. They were bound to assume that storms, which are common occurrences, might come on before the completion of the voyage, and that disaster might befall the fishing party in their charge if the regulations of the government, founded on the judgment of experience, were ruthlessly violated."

CANAL TO INSURE THROUGH COMMERCE.

Mr. B. L. Pennington, a prominent vessel owner of Cleveland, presented a very interesting paper on "The Evolution of Lake Commerce," at a recent meeting of the Ohio State Board of Commerce. Alike to a great many other practical men of the lakes, he is of the opinion that the present generation will not see lake cargo steamers crossing the Atlantic. On this score he says:

"The project of a ship canal connecting the lakes with tide water has become one of general and increasing interest. Although fearing it might prove injurious to the lake business through the ingress of ocean tonnage, I yet feel that a broad and unselfish policy, in the long run, is the better one, bringing, as it will, the greatest good to the greatest number. I have endeavored to show, among other things, the benefit of cheapened lake freights to agriculture. With the price of grain fixed at Liverpool, it is manifest that every cent saved in transportation thither and in handling, from the time it leaves the granary of the western farmer, is added to the price he receives. So, as cheapened lake transportation has already largely benefited him, it is obvious that could grain be consigned from lake ports direct to Liverpool, without breaking bulk, saving the cost of extra handling and commission, besides delays, a still further gain would accrue to the producer. The United States government should construct this waterway, as a project so gigantic and costly by private enterprise, necessitating tolls well nigh prohibitory, would not materially benefit the American producer. After constructing, the government could turn it over to the state or states through which it extends to maintain and operate it free of tolls of all traffic. But no vessel owner now living, in my opinion, will ever be affected by its competition. I believe, however, that this, the most brilliant conception of the nineteenth century, will materialize in the twentieth. Such a mammoth enterprise will necessarily consume much in construction; meanwhile a minority of the existing lake tonnage can possibly be adapted, and new tonnage constructed, to meet the necessities of deep sea navigation. Thus would the remodeled lake marine, with its deep channel outlet, competent to successfully cope with the peculiar dangers and limitations of lake navigation as well as to brave the oceam tempest, achieve its most conspicuous evolution."

LAKE MICHIGAN INTERESTS.

On Saturday night, February 13, the annual meeting of the Inter-Lake Yachting Asociatison will be held at the West House in Sandusky. Nine clubs will be represented, the Citizen's association, Detroit and West End Yacht clubs of Detroit, Buffalo, Cleveland, Erie, Put-in-Bay and Sandusky yacht clubs and the Toledo Yachting association.

The principal subject of consideration will be the arrangements for next season's regatta. The time and place will be determined and other arrangements made. A satisfactory set of rules have been provided, but they were arranged too late to make it possible to interest monied men in a project for the selection of cup contestants.

It is almost a foregone conclusion that the meeting will see the selection of Mr. E. D. Potter of Toledo, as successor to George H. Worthington of Cleveland, as commodore of the association. Mr. Worthington would, without doubt, be re-elected did not the rules of the organization prevent an official from succeeding himself. Mr. Worthington has, however, expressed himself as well satisfied with the status of the case, as he wishes to devote his attention to the raising of funds to construct a breakwater in front of the Cleveland club house.

Another matter to come up at the meeting will be action on the application of Detroit yacht club which wishes to join the Inter-Lake association, and thus be identified with and consolidated yachting interests.

SOME ASTRONOMY FOR FEBRUARY.

MERCURY.

Mercury is morning star, reaching its greatest elongation west of the sun, 26 degrees 23 m., on January 15. This will be the best time to look for Mercury as morning star, although its southern declination is unfavorable. The position of Mercury at that time will be, right ascension 20 h. 16 m. 30 s.; declination south 19 degrees 35 m. 16 s.

Mercury is stationary on the second, and in aphelion on the twenty-seventh day of the month.

VENUS.

Venus is evening star, and shines with regal splendor in the southwestern sky long after sunset. It reaches its greatest elongation, 46 degrees 39 m. east of the sun, on February 16.

Venus is in conjunction with the moon on the fifth of the month at 5 h. 43 m. in the afternoon, when Venus will be 3 degrees 48 m. south of the moon. This will form a most enchanting celestial picture, the moon being in the crescent phase at that time.

On the first day of the month Venus crosses the meridian at 3 h. 8 m. in the afternoon and sets at 9h. 10m. p. m. On the last day of the month Venus crosses the meridian at 2 h. 58 m. and sets at 9 h. 45 m. p. m.

The right ascension of Venus on the fifteenth of the month is 0 h 49 m. 27 s.; and its declination north 6 degrees 59 m. 22 s.

MARS.

Mars is evening star, and, being at a high altitude in the early evening hours, is well placed for telescopic study, Mars is yet in the confines of the constellation Taurus, thro-gh which it is moving slowly eastward.

On February 11, at 2 h. 43 m. in the afternoon, Mars is in conjunction with the moon, when the planet will be 1 degree 51 m. south of the moon. On the 19th of the month there will be a conjunction of Mars and Neptune, when the latter planet will be 4 degrees 2 m. south of Mars. This will be a favorable time to pick up Neptune with a moderate size telescope. A magnifying power of 200 to 300 diameters will show a perceptible disk to the planet, which stars of about the same magnitude will not give. Thus by its different appearance among the stars Neptune may, with care, be identified.

On February 1 Mars crosses the meridian at 7 h. 56 m. p. m., and sets at half past 3 a. m.

On the last day of the month it crosses the meridian at 6 h. 44 m. p. m., and sets at 2 h. 25 m. a. m.

The right ascension of Mars on February 15 is 5 h. 0 m. 53 s.; and its declination north 25 degrees 26 m. 17 s.

JUPITER.

Jupiter is morning star until February 23, when it comes into opposition with the sun, or 180 degrees therefrom, after which date it is evening star.

It is in excellent position for observation, and many interesting details of its belts and satellites may be seen with even small telescopes. In the great telescopes Jupiter is a magnificent object.

The planet is in the constellation Leo.

On February 17, at 7 h. 3 m. p. m., Jupiter is in conjunction with the moon, when the planet will be 3 degrees 33 m. north of the moon.

On the first of the month Jupiter rises at 7 h. 15 m. p. m. On the last of the month it rises shortly before sun-

The right ascension of Jupiter on February 15 is 10 h. 33 m. 57 s.; and its declination north 10 degrees 27 m. 24 s.

SATURN.

Saturn is morning star. It comes into quadrature with the sun on February 18, when it will be 90 degrees west of the sun. Saturn rises on the first of the month at 2 h. 10 m. a. m. and at the last of the month at 12 h. 30 m. a. m.

URANUS AND NEPTUNE.

Uranus is in the morning sky, and is in quadrature with the sun on February 17, when its position will be in right ascension 15 h. 47 m. 10 s.; declination south, 19 degrees 42 m. 41 s.

Neptune is in the evening sky, and its place is indicated in the section on Mars, with which planet it is in conjunction on February 19.

Smith Observatory, Geneva, N. Y., January 20, 1897.

NOTES.

The Mac Kinnon Manufacturing Co., Bay City, Mich., has just completed for shipment to the Northwestern Boiler Works, Duluth, a gigantic pair of boiler plate rolls. The finished weight of this immense tool is something over 12 tons. The top roll is 13 inches diameter, 17 feet 7 inches long over all. The two bottom rolls are each 11 inches diameter. Power is supplied by a double engine directly attached. The tool has been specially designed by the Mac-Kinnon Manufacturing Co. for heavy work, having a capacity for rolling the largest steel plates now manufactured. The construction of heavy machinery for steel and iron working industries is a recent addition to the specialties heretofore manufactured by this firm.

The firms of Gas Engine & Power Co., and Charles L. Seabury & Co., Morris Heights, N. Y. city, have just entered into a contract with Mr. P. A. B. Widener of Philadelphia, owner of the steam yacht "Josephine," to construct for him a new steam launch as tender for the yacht. The new launch will be 30 feet long, about 7 feet beam. The hull will be built of oak keel and frames. The outside planking will be of mahogany, bright varnish finish, and rubbed down. The forward cockpit will be fitted with slatted seats and solid floor, while the after cockpit will be fitted with seats with lockers underneath and grating floor. The general finish throughout to be in mahogany. There will be three cockpits, with melon top awnings, which fold down around the coamings and occupy small space. The machinery will consist of a "Seabury" fore and aft compound marine engine, with feed and air pump attached, and the boiler will be of "Seabury's" latest design, safety water tube. The speed will be 9 to 10 miles per hour. Ring bolts will be fitted fore and aft for hoisting launch out on the davits. This launch will be somewhat similar to the launch built for Mr. W. K. Vanderbilt, and the launch built as tender for revenue cutter service, bark "Chase."

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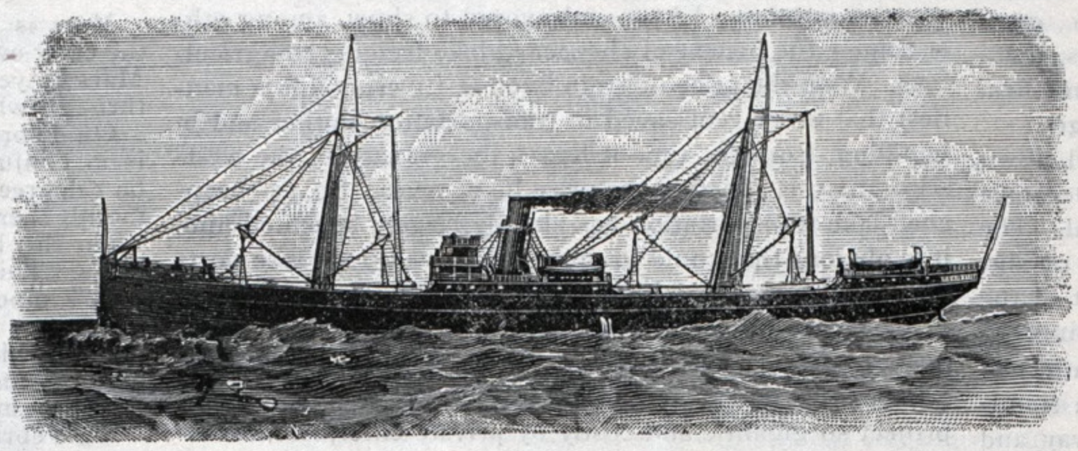

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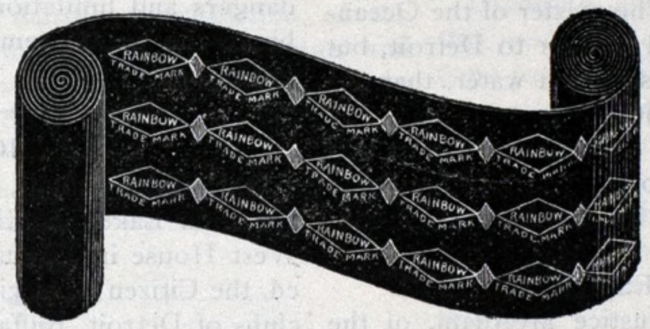

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ELECTION OF OFFICERSOF SHIP OWNING FIRMS.

Buffalo & Duluth Transportation Co., Hamtramck—J. W. Millen, president; W. C. McMillan, vice president; A. A. Parker, treasurer and manager; B. W. Parker, secretary.

Crescent Transportation Co., Hamtramck—William H. Stevens, president; John M. Nicol, vice president; W. H. Irvine, secretary; Harry S. Hodge, treasurer. The directorship remains the same excepting the substitution of David Wallace for Charles Chamberlin.

Detroit & Cleveland Steam Navigation Co.—James McMillan, president; Hugh McMillan, vice president; W. C. McMillan, treasurer; David Carter, secretary and general manager, with George Head are directors.

Duluth & Atlantic Transportation Co.—James McMillan, president; Hugh McMillan, vice president; W. C. McMillan, secretary; W. K. Anderson, treasurer; James W. Millen, general manager; George M. Black, auditor.

Hamtramck Transportation Co.—Hugh McMillan, president; W. C. McMillan, vice president and treasurer; James W. Millen, secretary and general manager; George M. Black, auditor, with James McMillan and W. K. Anderson are directors.

Inter-Lake Transportation Co.—P. J. Ralph, president; C. D. Waterman, vice president; H. C. Ralph, secretary and treasurer.

State Transportation Co.—John Pridgeon, jr., president; Joseph King, vice president; B. W. Parker, treasurer; A. A. Parker, secretary, and general manager.

Peninsular Transit Co.—A. A. Parker, president and general manager; W. H. Oades, vice president; Harry S. Hodge, treasurer; B. W. Parker, secretary; with A. R. Munger, are directors.

Swain Wrecking Co.—L. C. Waldo, president; John S. Quinn, vice president; A. A. Parker, secretary and general manager; J. W. Millen, treasurer, with Martin Swain, are directors.

Parker Transportation Co.—A. A. Parker, president and general manager; A. R. Munger, vice president; B. W. Parker, secretary; H. W. Dyar, treasurer; with F. B. Gaylord, are directors.

Red Star Line.—A. A. Parker, president; John Pridgeon, vice president; J. H. Muir, secretary; B. W. Parker treasurer; J. W. Millen, manager; with C. F. Bielman, are directors.

White Star Line.—A. A. Parker, president; John Pridgeon, vice president; B. W. Parker, treasurer; C. F. Bielman, secretary; J. W. Millen, general manager; with A. W. Colton, of Toledo, and R. Gray, are directors.

Pridgeon Transit Co.—John Pridgeon, president; John S. Quinn, vice president; B. W. Parker, treasurer; A. A. Parker, secretary and manager; with A. R. Munger, are directors.

Sulphite Fiber Transportation Co.—C. L. Ortman, president; M. W. Humphrey, secretary; A. G. Lindsay, treasurer.

Northwestern Transportation Co.—H. H. Brown, president; L. C. Waldo, secretary, treasurer and general manager; with H. H. Brown, George E. Hartnell, E. S. Hartnell and D. A. McLachlan, are directors.

Ionia Transportation Co.—F. M. Thompson, president and treasurer; E. L. Thompson, vice president; W. W. Kelly, secretary.

Hope Transportation Co.—T. S. Christie, president; W. R. Stafford, treasurer, Port Hope; John A. Francombe, manager; Thomas K. Christie, secretary; with M. J. Jenness and Charles D. Haywood, directors.

Wayne Transportation Co.—P. H. Monahan, president; R C. Teuton, secretary; E. McWilliams, treasurer; John A. Francombe.

Vulcan Transportation Co.—C. A. Black, president; J. B. Baugh, vice president; S. Findlater, secretary and treasurer.

Progress Transportation Co.—C. A. Black, president; A. I. McLeod, vice president; Alex. McVittie, secretary and treasurer.

Roby Transportation Co.—George W. Roby, president; L. C. Waldo, secretary and treasurer.

Ogdensburg Transit Co., Utica, Mich.—E. C. Smith, St. Albans, Vt., president; A. McVittie, Detroit, vice president; F. W. Baldwin, Ogdensburg, secretary and treasurer.

Wolverine Steamship Co.—The old board of directors was elected, except the substitution of Watson M. Freer for Charles L. Freer.

Thompson Navigation Co.—E. L. Thompson, president; C. A. Chamberlin, vice president; F. M. Thompson, treasurer; R. H. Phillips, secretary.

J. Emery Owen Transportation Co—Mrs. J. E. Owen, president; W. J. Gray, vice president and treasurer; J. C. Johnson, secretary.

The Percheron and Michigan Navigation Companies elected officers as follows: Percheron—T. W. Palmer, president; William Livingstone, secretary. Michigan Navigation Co.—Charles Kellogg, president; T. W. Palmer, vice president; William Livingstone, treasurer; W. A. Livingstone, secretary, and C. S. Barnes, as one of the directors, with the foregoing named officers, as directors.

It is pleasant to receive a letter like the following from patrons of your industry. Mr.H. G. Trout, King Iron Works, Buffalo, N. Y. Dear Sir.—Yours of the 28th ulto. at hand, and in reply beg to state that the Composition Brass Wheel you made for me some time in February, 1890, for my steamer "S. Pizati," has proven to be the finest piece of work I have ever seen, and has given me entire satisfaction. The same wheel has continually run on said steamer for the past six years, and it looks better to-day than when we got it, as it has a smoother surface, and it looks as though the wheel was good for twenty-five more years. We have nothing but the highest praise concerning same, both as to speed and quality, and should we require more wheels for any of our steamers, we will surely remember you. Very truly yours, S. Oteri, Owner S. Oteri Pioneer, Central American Steamship Co., New Orleans, Feb. 1, 1897.

LITERARY NOTICES NEW PUBLICATIONS.

"The Steam Navy of the United States," a history of the growth of the steam vessel of war in the U. S. Navy, and of the naval engineer corps. With numerous illustrations. By Frank M. Bennett, Passed Asst. Engineer U. S. N. Press of W. T. Nicholson, Pittsburg, Pa.

Macmillan & Co., 66 Fifth avenue, New York, publish "Navigation and Nautical Astronomy," by F. C. Stebbing, M. A., Chaplain and Naval Instructor, Royal Navy. It is a very complete work of instruction on this subject, containing 328 octavo pages of handsomely printed text illustrated by numerous diagrams. The last chapter contains a number of miscellaneous examples to exercise the ingenuity of the student. The price of the book is $2.75.

The Superior Annual, containing interesting information concerning the developments of Superior, Wis., on the Sault Ste. Marie Canal traffic is just to hand. Tables, comparative statements, general statistics and description of Superior's transportation facilities are contained therein. Compiled by Jno. M. McCabe and published by the Telegram Printing Co., Superior, Wis.

"A Vast Empire and Its Metropolis" is what we find to hand this week from the press of the News-Tribune, Duluth for 1897 and its supplement with the issue of Jan. 28th. A 120-page brochure got up on the finest calendared paper, blue cover, with gilt lined titles, amply shows that Mr. A. Y. Thoits president, and general manager of the consolidated papers is a capable and progressive man in this special direction also in the management of the periodical or daily issued from his office. The annual is a credit to all concerned and ably puts forth the superiority of Proctor Knott's Zenith City.

"Elementary Seamanship"—This is a manual of seamanship by Wilson D. Barker, published in London by Charles Griffin & Co, Ld., and by J. B. Lippincott Co. of Philadelphia. This series of books, written by sailors for sailors, is designed to meet the growing desire on the part of officers in the merchant marine for a more scientific insight into the principles of their trade, business or profession, though we hold it is the latter term which applies. The treatment is thoroughly scientific, yet as free as possible from abstruse technicalities, and the style such as will render it easy for the juvenile sailor to gain a knowledge of the elements of his profession by private reading and without undue difficulty. The volume under review is fully worthy of a more extended mention than usual and in this conection we would like to say that part 1 is devoted to the building of a ship, parts of hull, masts, etc., then to knots, splicing, etc., gear, lead and log ropes, rigging, anchors, sailmaking, sails, handling of boats, signaling, rules of the road, etc. Price $2.00 from the Marine Record or publishers.

VISIBLE SUPPLY OF GRAIN.

As compiled for The Marine Record by George F. Stone, Secretary Chicago Board of Trade.

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Baltimore	316,000	2,116 000	592 000	416 000	.....
Boston	884,000	880,000	300 000	1 000	16 000
Buffalo	1,698,000	112 000	241 000	136 000	1,155,000
" afloat	334,000	225 000	261 000	95 000	65 000
Chicago	11,953,000	6.755 000	5 378 000	1,440 000	148,000
" afloat	200,000	2 059,000	464,000	.....	84,000
Cincinnati	6 000	3 000	10,000	8 000	137,000
Detroit	395,000	98 000	9 000	33,000	32,000
" afloat	.....	.....	.....	.....	.....
Duluth and Superior	3,606,000	15,000	1,609,000	647 000	652,000
" afloat	402,000	.....	.....	53 000	.....
Indianapolis	144,000	40 000	.....	.....	.....
Kansas City	472 000	119,000	201 000	18,000	.....
Milwaukee	305,000	4,000	6 000	421 000	101,000
" afloat	.....	.....	.....	.....	95,000
Minneapolis	18 318 000	57 000	732 000	63 000	77,000
Montreal	446 000	24 000	238 000	51,000	42 000
New York	3,875 000	4.716,000	1,988 000	294 000	407 000
" afloat	1,100,000	464,000	74,000	8,000	118,000
Oswego	28 000	.....	.....	.....	50,000
Peoria	166 000	418 000	297,000	25,000	59,000
Philadelphia	559,000	1,324 000	89 000	.....	.....
St. Louis	1,452,000	2 937,000	313,000	31,000	7,000
" afloat	.....	54,000	.....	.....	.....
Toledo	1 097,000	872,000	334 000	124,000	.....
" afloat	.....	.....	.....	.....	.....
Toronto	219 000	.....	63,000	.....	56,000
On Canal	.....	.....	.....	.....	.....
On Lakes	.....	.....	.....	.....	.....
On Mississippi	.....	.....	.....	.....	.....
Grand Total	47 885,000	23,332 000	13,324,000	3 864,000	3,321,000
Corresponding Date 1896	66,119 000	12,174,000	6 541,000	1,554,000	2,562,000

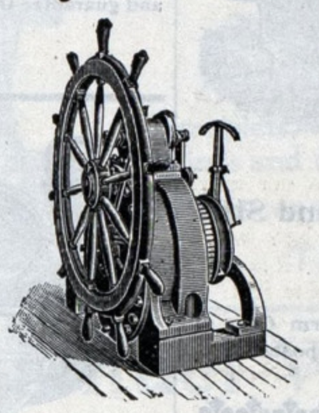
NORTH AMERICAN REVIEW.

The Hon. Hannis Taylor, United States Minister to Spain, presents in the opening pages of the North American Review for February a remarkably interesting study on the "Powers of the French President." Mr. Taylor earnestly advocates a revision of the executive functions, as they at present exist in France, and the establishment of a permanent ministry, after the American model. Such a change, he is confident, could not fail to have a happy effect, disturbed as France now is by her changes of ministry. Also a timely paper, and one of exceeding interest on "South Africa and Its Future," is contributed by John Hays Hammond, whose connection with the recent stirring events in that portion of the globe is well known. Mr. Hammond describes the country, dwelling particularly on the great value of its mineral resources, and predicting that its general prosperity will be further enhanced by the establishment of customs unions, and a confederation of the South African States.

A unique article on "Speculation in Damage Claims," is contributed by E. Parmalee Prentice. Mr. Prentice was born in Davenport, Iowa, in 1863. He attended the Albany Academy, and graduated from Amherst College in 1885. After studying law at Harvard Law School, he began his legal career in Chicago in 1888, and he is now a resident of that city. He is the General Counsel of the Illinois Steel Co., the Chicago Ship Building Co., and other corporations.

A well-informed writer who, in this instance, prefers to sign himself "A Foreign Naval Officer," attempts to answer the question, "Can the United States Afford to Fght Spain?" The opinion is firmly expressed that an embroilment with Spain would result in but little damage to the older country, while we would have much more at stake—and even in event of victory could win little more than barren glory.

Queen City Hydraulic Steerer.



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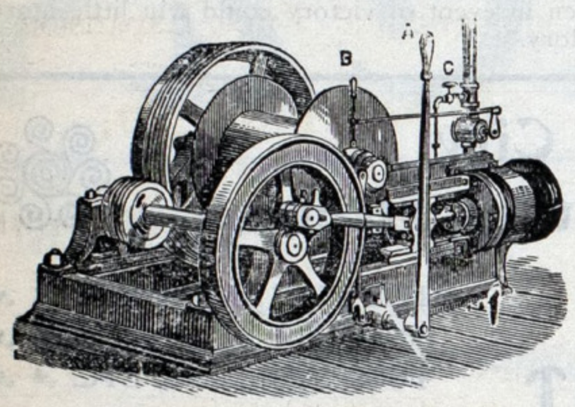

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Steam Barge Mark B. Covell, Manistee, 18 and 30x26.
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Steam Barge Charles A. Street, Chicago, 20 and 36x36
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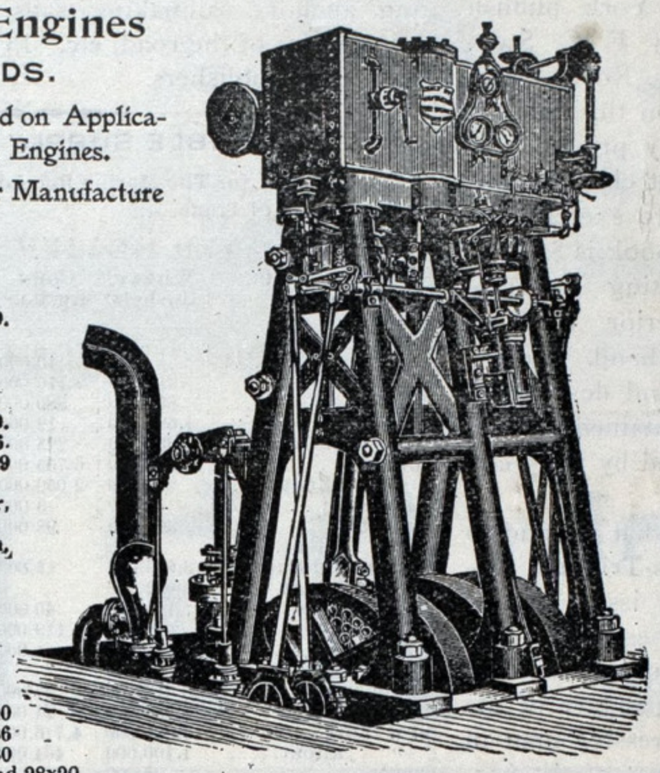

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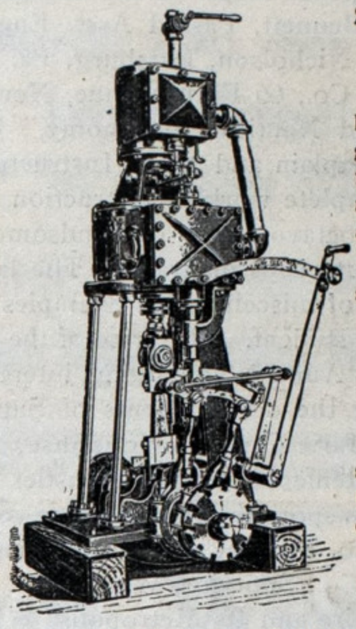

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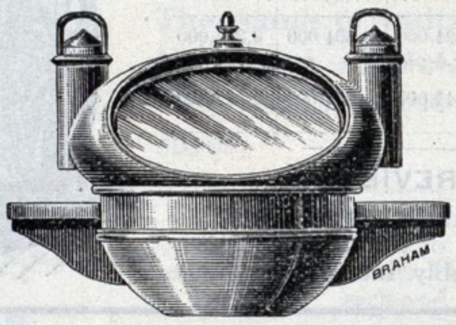

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PROPOSALS.

TREASURY DEPARTMENT, Washington, D. C., February 8, 1897.—Sealed proposals are hereby invited and will be received at this Department until 2 o'clock p. m., Monday, March 15, 1897, at which time and place they will be opened in the presence of attending bidders, for the construction by contract of two steel steam propellers for the U. S. Revenue Cutter Service, for service on the Great Lakes, to be known while in course of construction, or until launched, as "Nos. 4 and 5, R. C. S." Bids will be received, on separate forms of proposal, for either or both of the vessels. Said vessels are to be constructed in accordance with plans and specifications provided by the Secretary of the Treasury, which, together with the forms of proposal, contract, etc., may be obtained upon application to this Department. Proposals will be considered only from such shipbuilders as can show to the satisfaction of the Secretary of the Treasury that they are possessed of the necessary plant and facilities for the performance of the work. Evidence as to this ability must accompany the proposal. Each proposal must include the construction of the vessel and her machinery, complete in all respects as required by the plans and specifications. Each of said vessels must be completed and delivered at such port on the Great Lakes as may be designated by the Secretary of the Treasury, at the earliest practical date, and bidders are informed that because of the urgent need of speedy delivery, the element of time will be given due consideration in determining the award of the contract. Each proposal must be accompanied with a cash deposit or certified check payable to the order of the Secretary of the Treasury, in the sum of five thousand dollars ($5,000). The certified check of the successful bidder will be retained until the execution of a formal bond or contract, and the approval of the same by the Secretary of the Treasury, and the certified checks of the unsuccessful bidders will be returned immediately after the proposal of the successful bidder shall have been accepted. Bids must be addressed to the Secretary of the Treasury, and be indorsed on the envelope, "Proposals for revenue steamers for Great Lakes." The right is reserved to reject any or all bids and to waive defects if deemed for the interest of the Goverment so to do.

W. E. CURTIS,
Acting Secretary.

PROPOSALS.

U. S. Engineer Office, 185 Euclid Ave., Cleveland, O., February 8, 1897. Sealed proposals for furnishing and delivering timber, iron and stone, for construction of breakwater at Conneaut Harbor, Ohio, will be received here until 2 o'clock p. m., standard time, Friday, February 26, 1897, and then publicly opened. Information furnished on application to Jared A. Smith, Lt.-Col., Engineers.

Wheeler Condenser & Engineering Co.,

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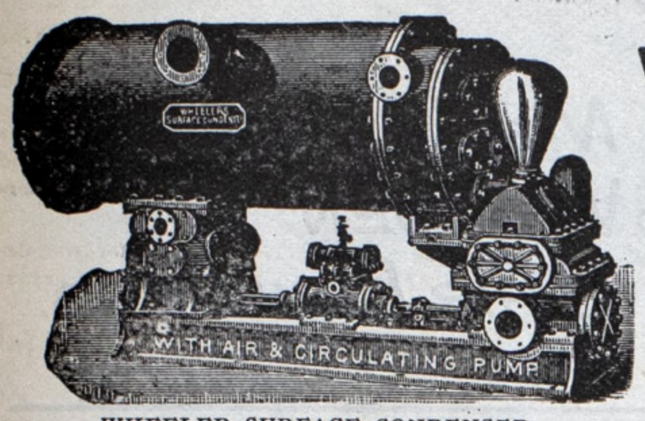

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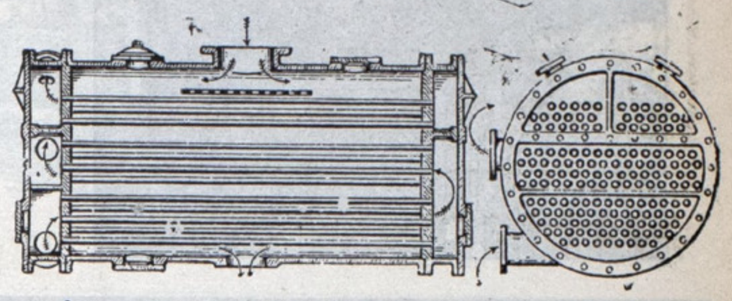

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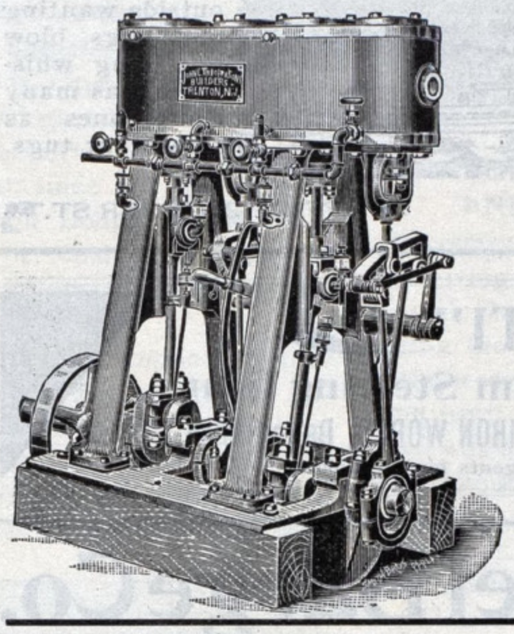

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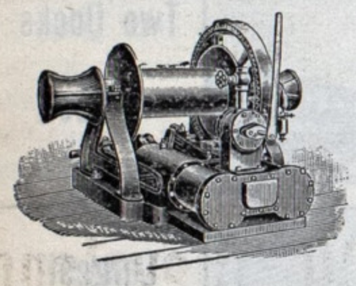

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TERMS REASONABLE. TAKE WADE PARK OR PAYNE AVE. CAR.

PROPOSALS.

U. S. Engineer Office, Duluth, Minn., Dec. 16, 1896. Sealed proposals for dredging about 21,000,000 cubic yards in the harbor of Duluth, Minn., and Superior, Wis., will be received here until noon, Feb. 15, 1897, and then publicly opened. Information furnished on application. Clinton B. Sears, Major Engrs. 52-6

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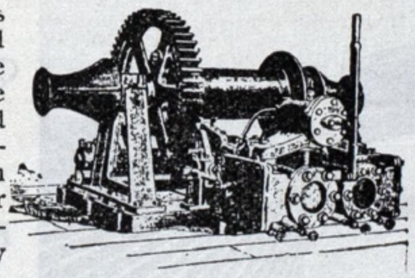

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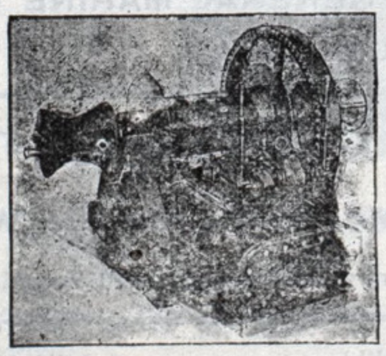

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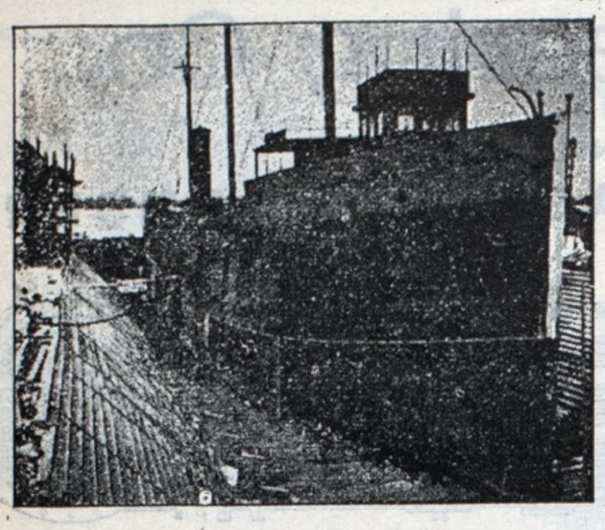

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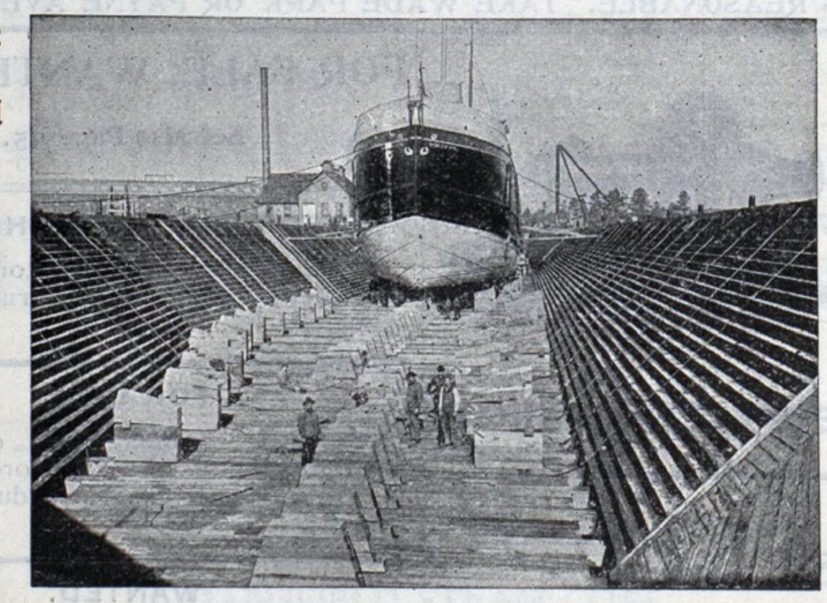

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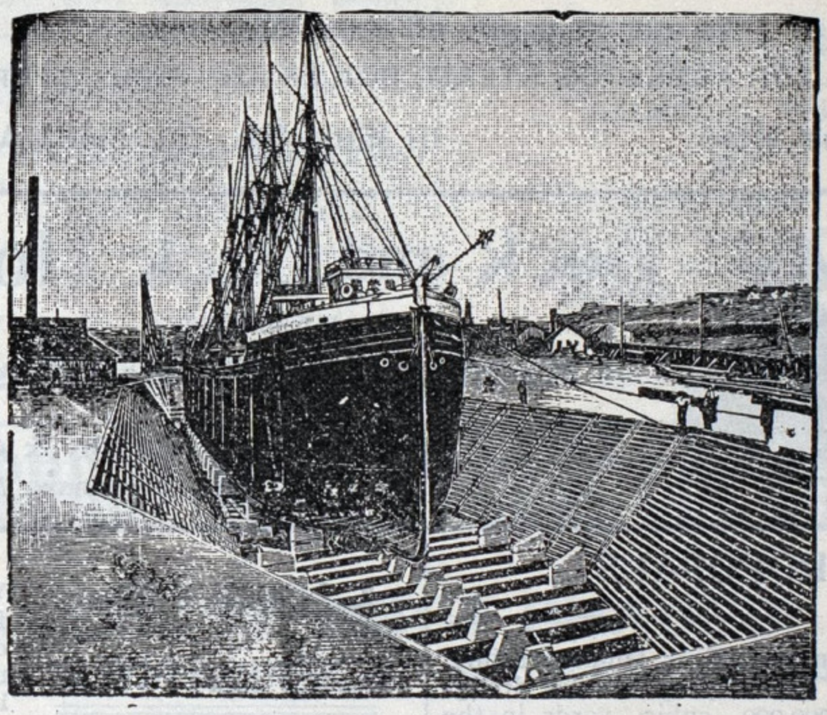

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